

FIG. 1A

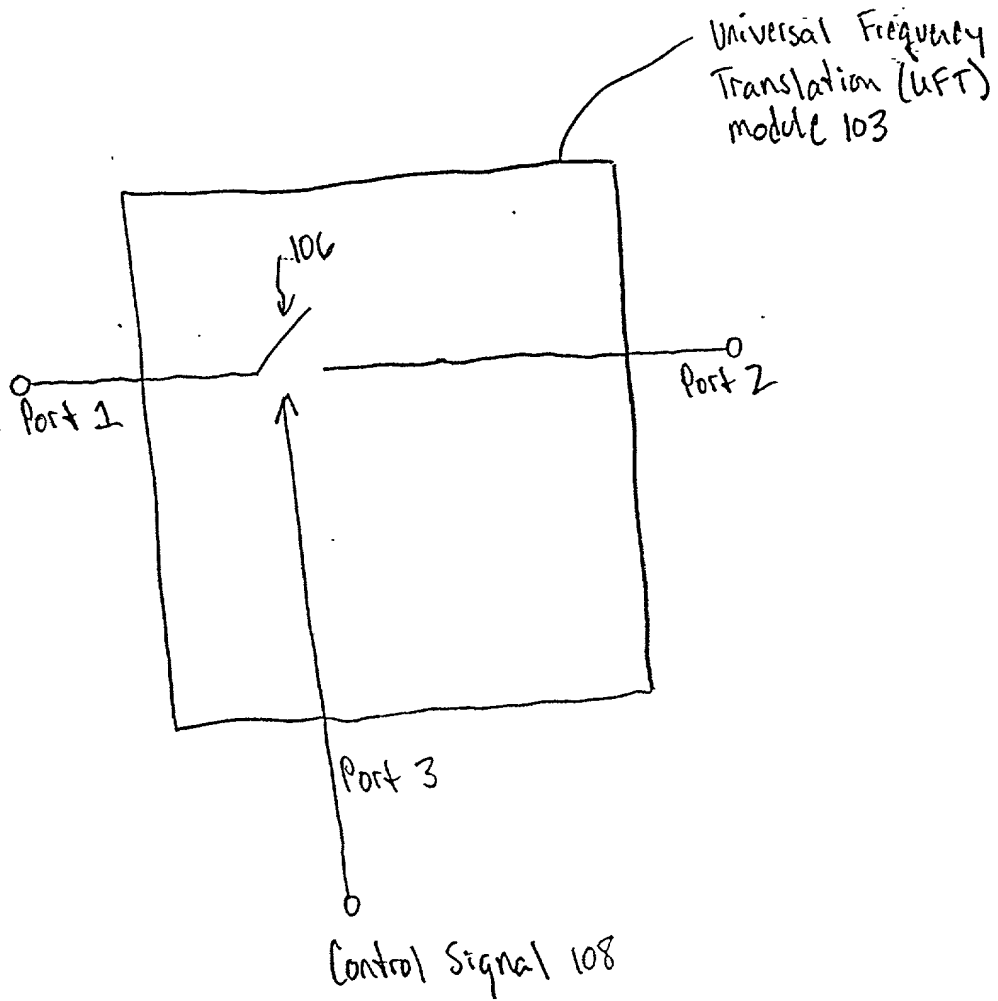


FIG. 1B

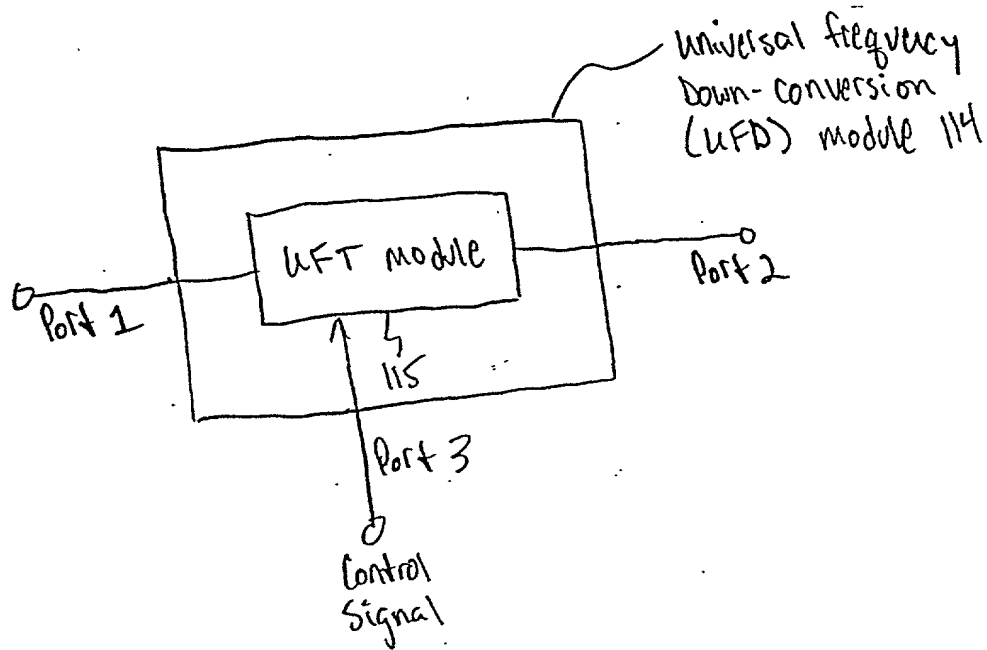


FIG. 1C

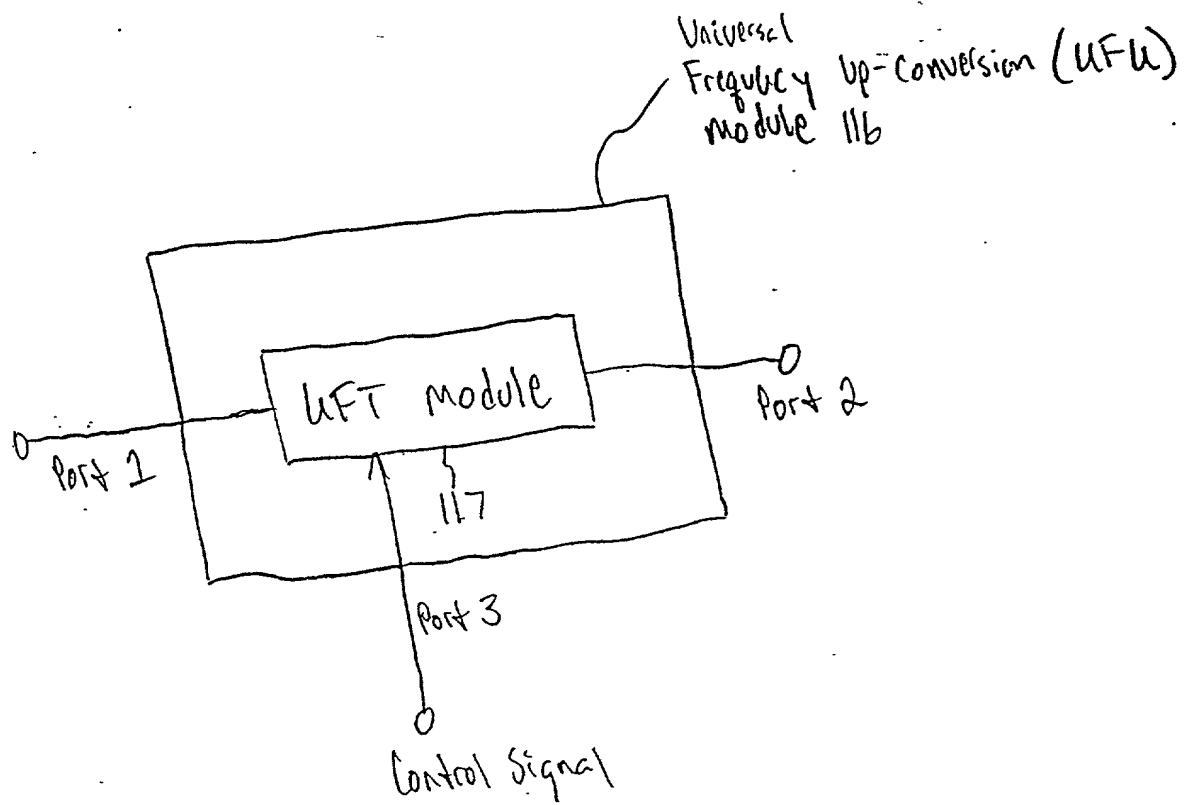


FIG. 1D

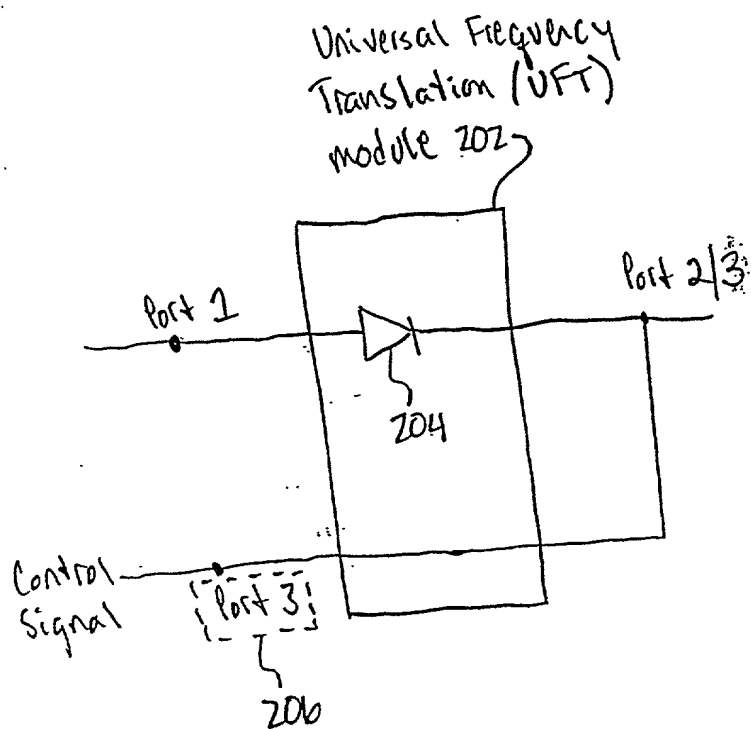


FIG. 2

Universal Frequency  
Up-Conversion (UFU) module 300

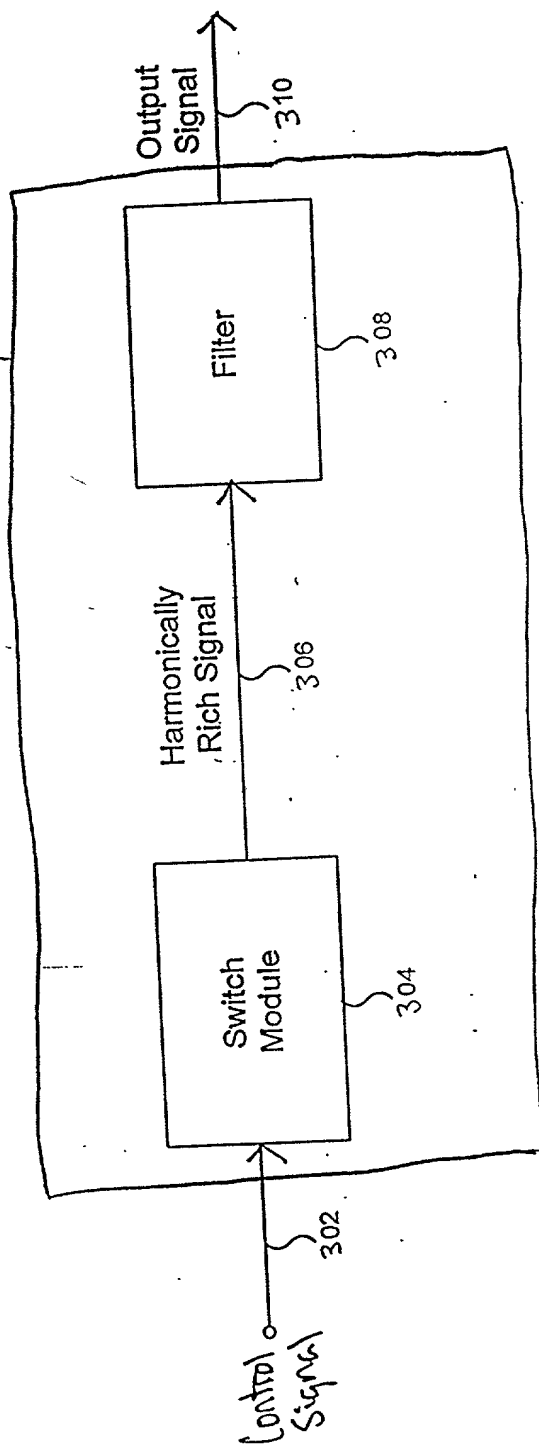


FIG. 3

W

2040E3-0299001

Universal Frequency  
Up-Conversion (UFCU) module 401

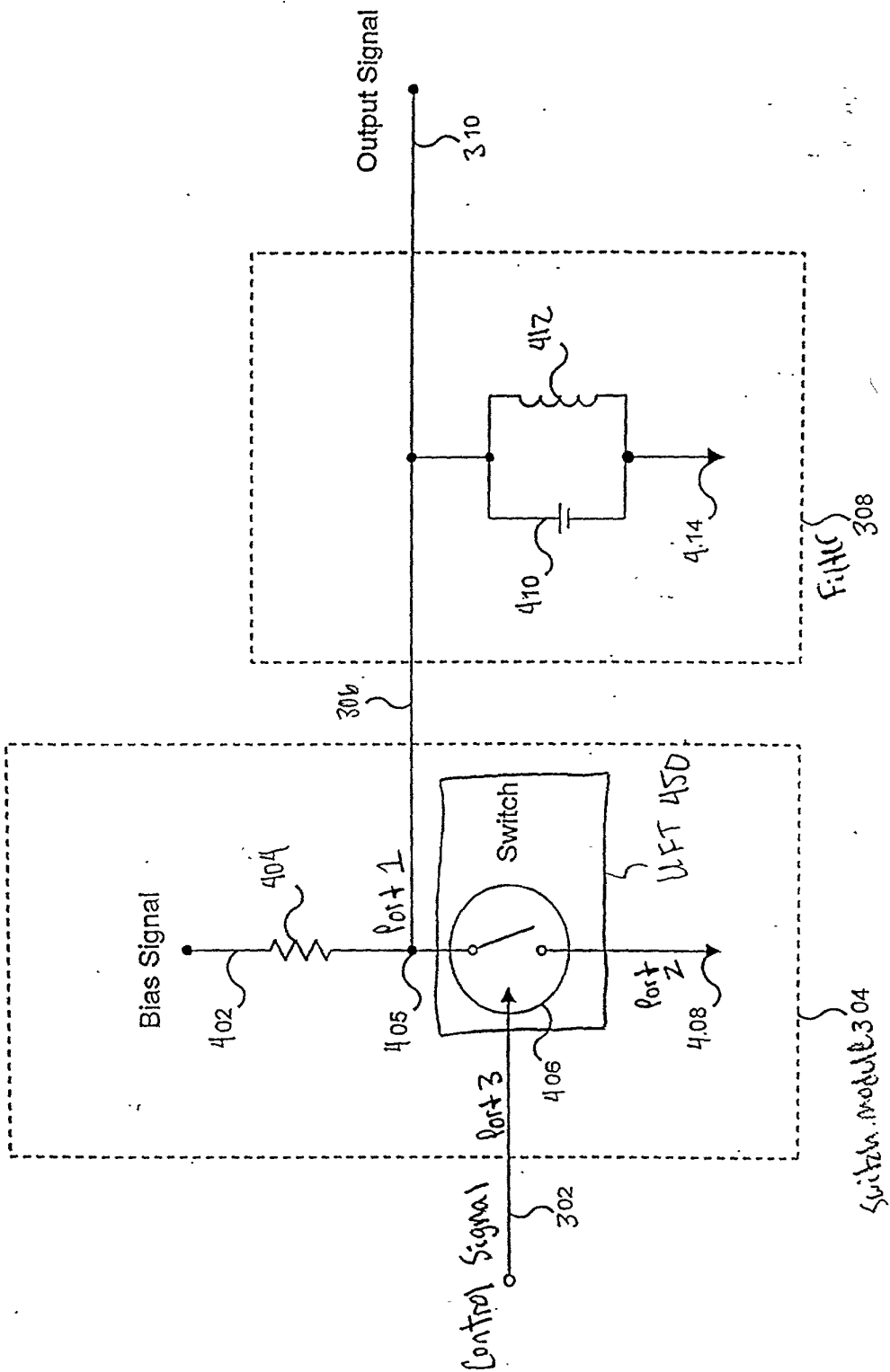


FIG. 4

Universal Frequency  
up-conversion  
(UFU) module 500

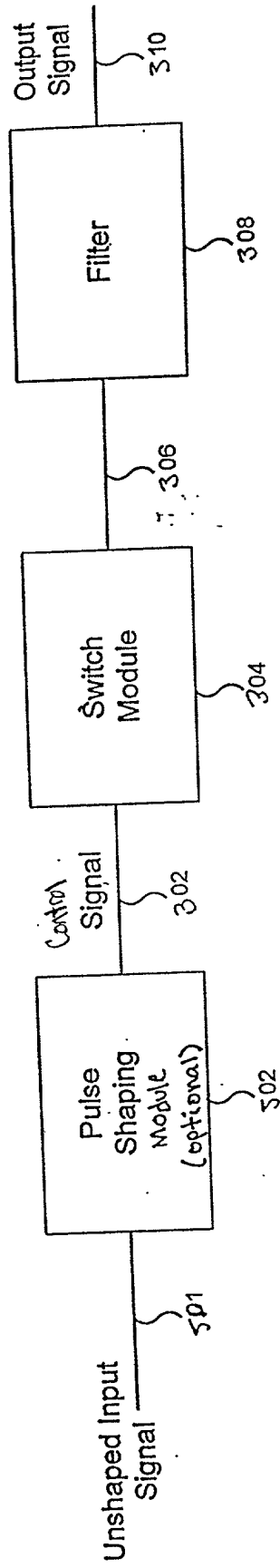
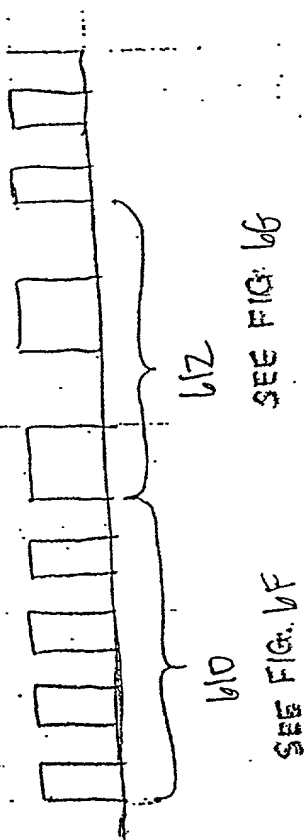


FIG. 5

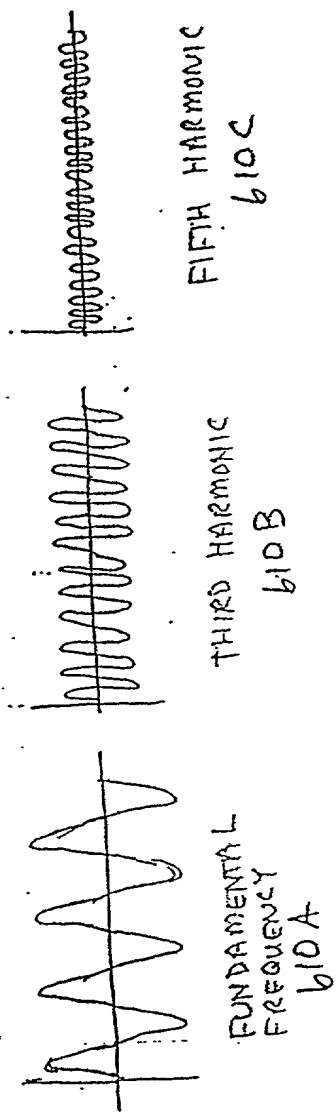




EXPANDED VIEW OF  
HARMONICALLY RICH  
SIGNAL 608



HARMONICS OF  
SIGNAL  $\sin(\omega t)$   
(SHOWN SEPARATELY)



## HARMONICS OF SIGNAL UZ (SHOWN SEPARATELY)

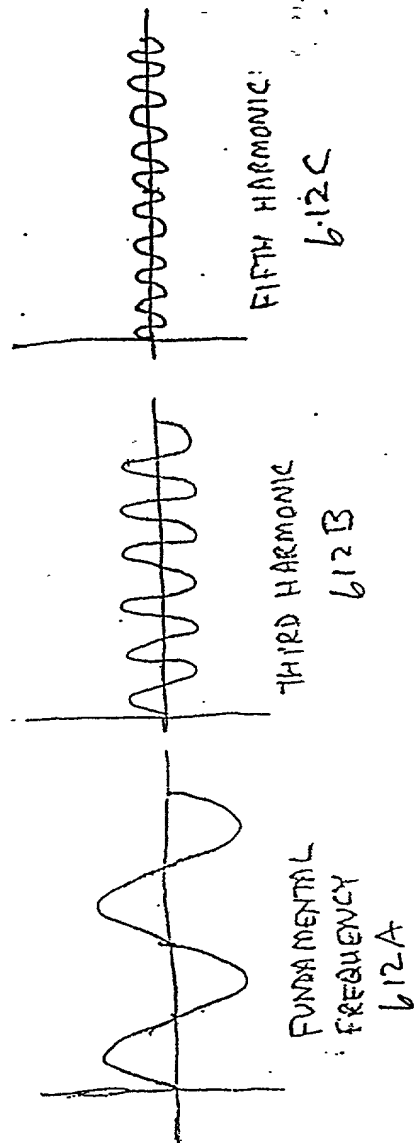


FIG. 6 (cont)

175

Fig. 6I.

FLG-b (cont)

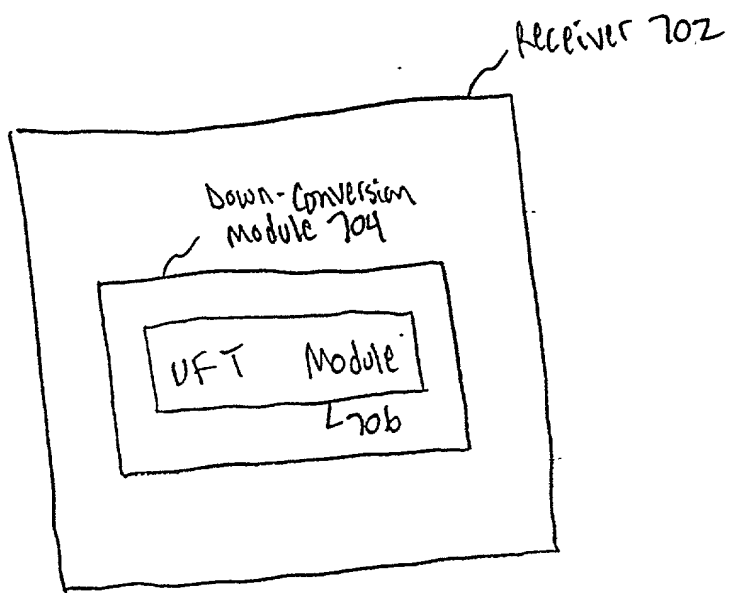


FIG. 7

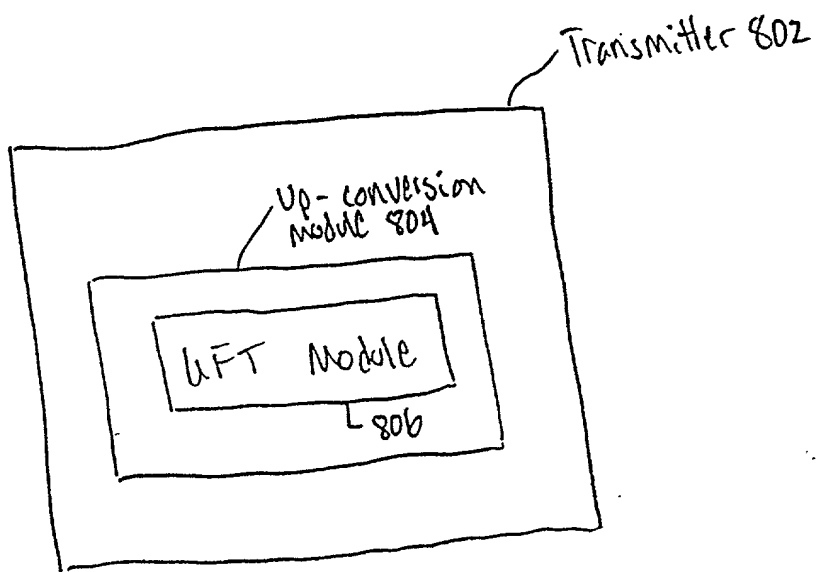


FIG. 8

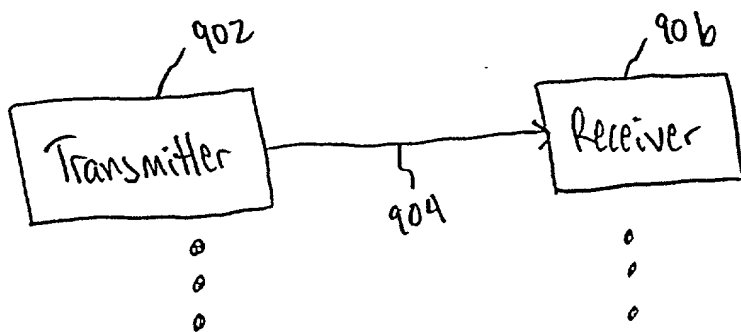


FIG. 9

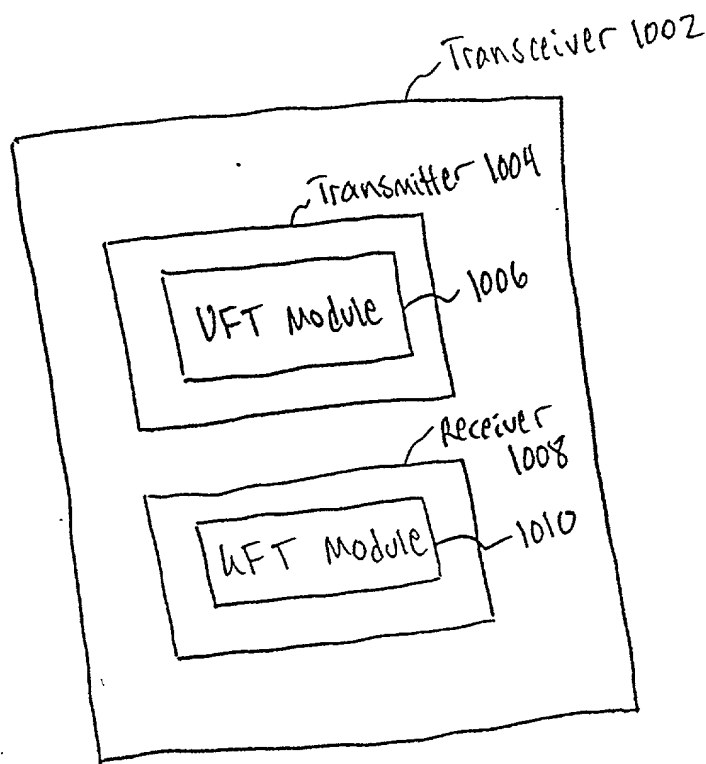


FIG. 10

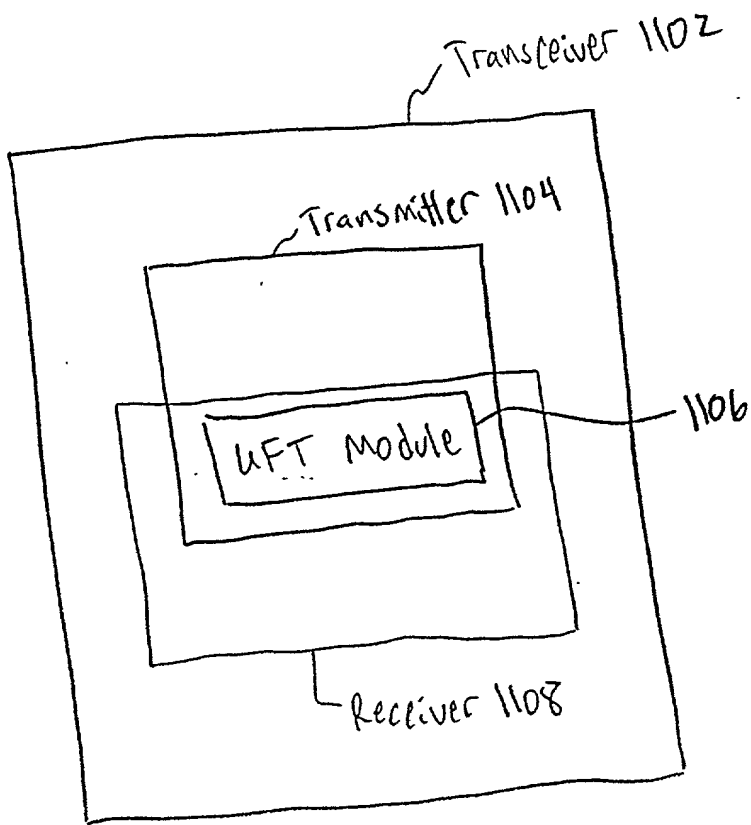


FIG. 11



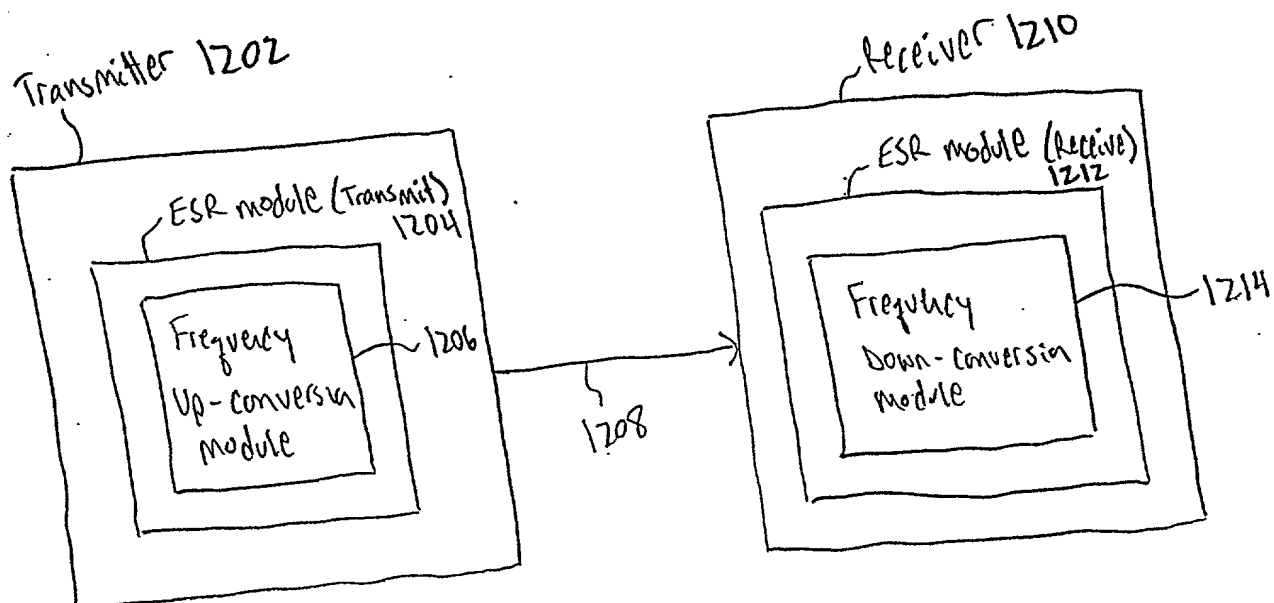


FIG. 12

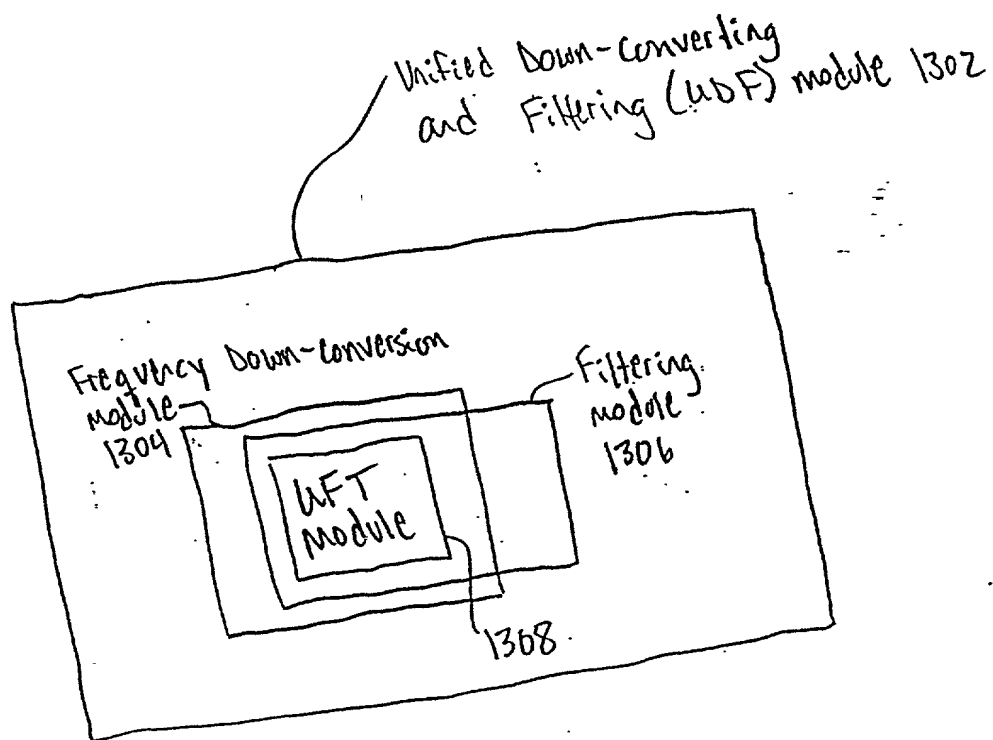


FIG. 13

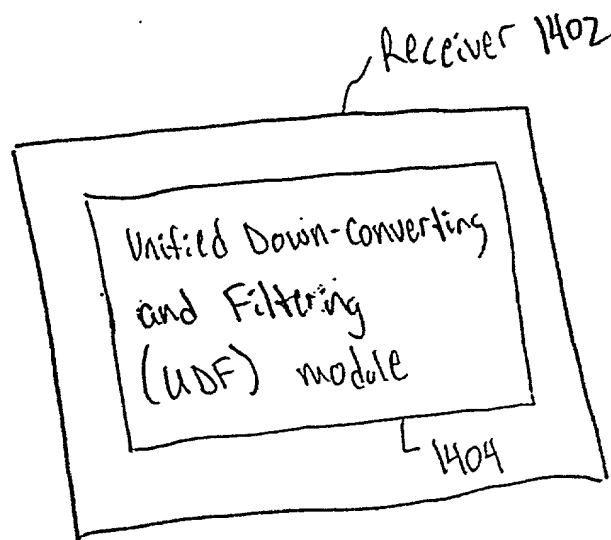


FIG. 14

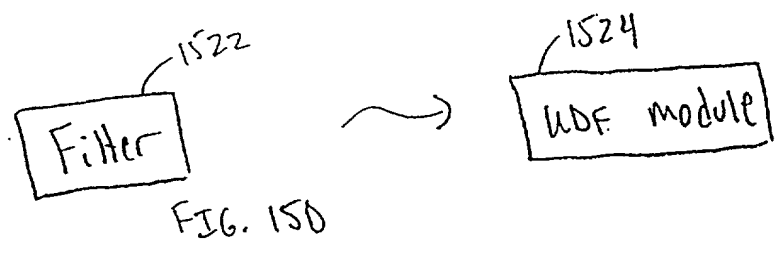
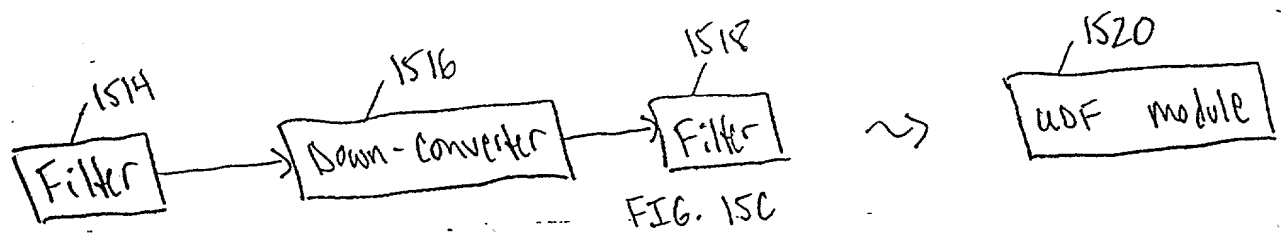
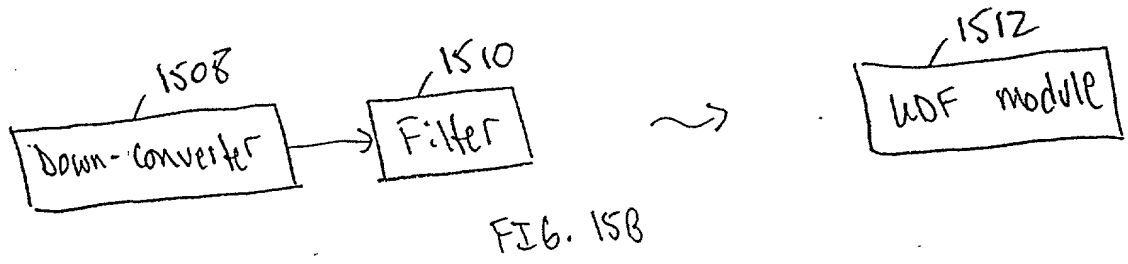
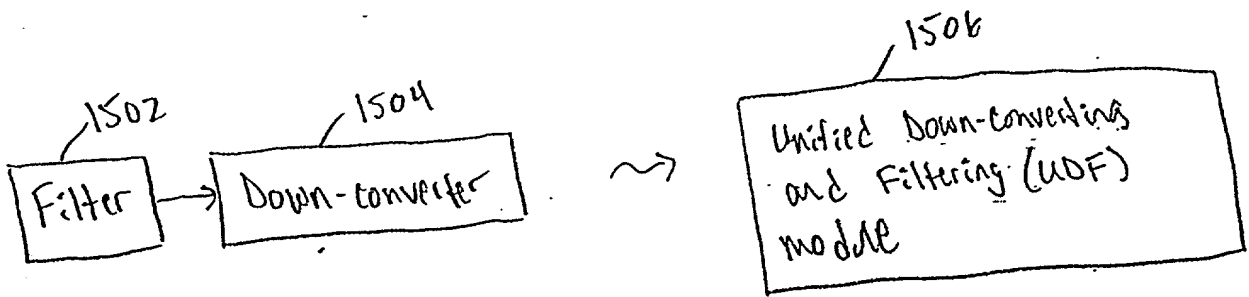


FIG. 15A

1530  
Amplifier



1532  
WDF Module

FIG. 15F

2000-0000-0000

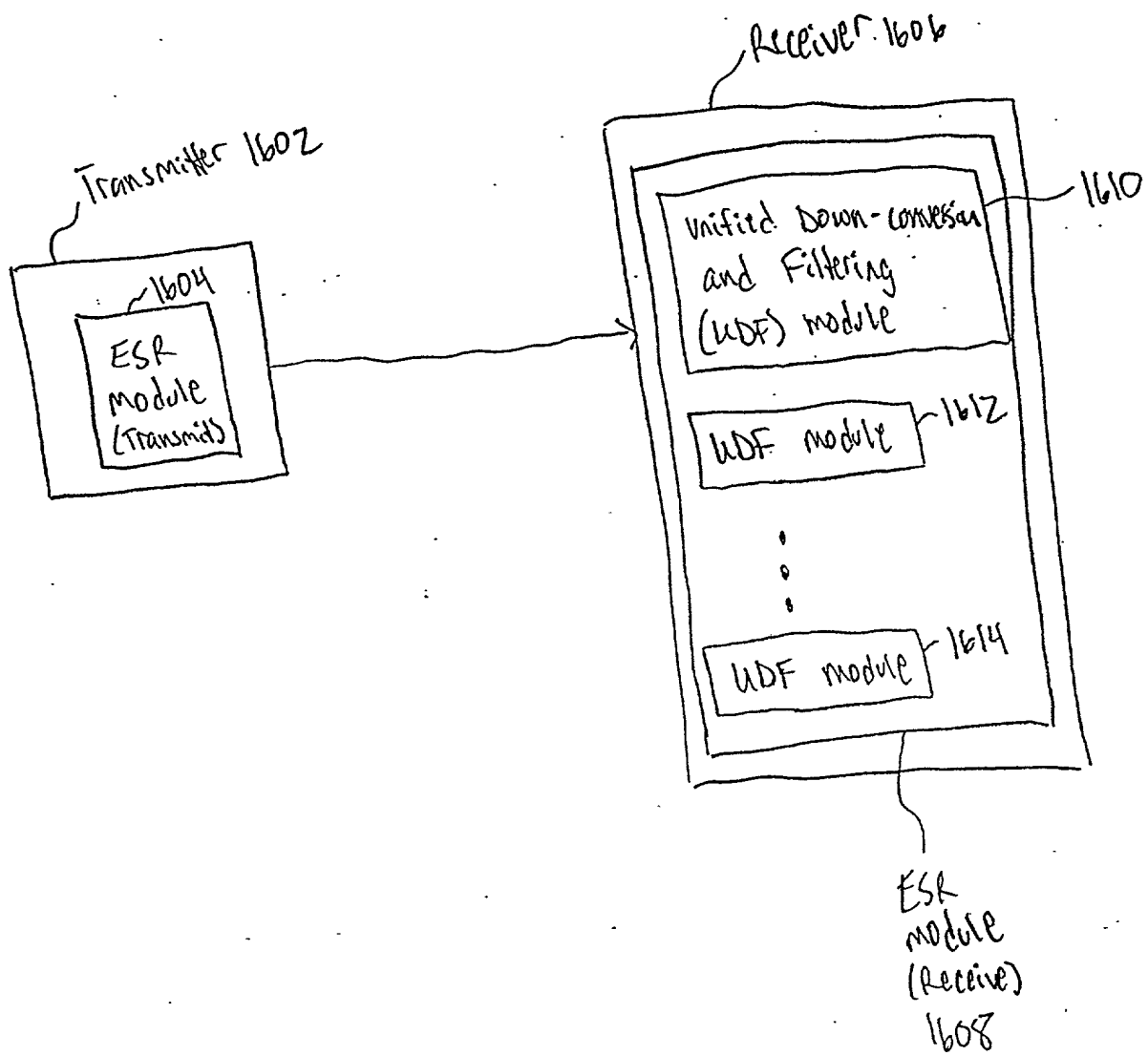


FIG. 16

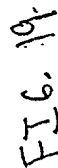


1802

| Time<br>Node | t-1<br>(rising edge<br>of $\phi_1$ ) | t-1<br>(rising edge<br>of $\phi_2$ ) | t<br>(rising edge<br>of $\phi_1$ ) | t<br>(rising edge<br>of $\phi_2$ ) | t+1<br>(rising edge<br>of $\phi_1$ )                |
|--------------|--------------------------------------|--------------------------------------|------------------------------------|------------------------------------|---|
| 1902         | $VI_{t-1}$ 1804                      | $VI_{t-1}$ 1808                      | $VI_t$ 1816                        | $VI_t$ 1826                        | $VI_{t+1}$ 1838                                     |
| 1904         | —                                    | $VI_{t-1}$ 1810                      | $VI_{t-1}$ 1818                    | $VI_t$ 1828                        | $VI_t$ 1840   |
| 1906         | $VO_{t-1}$ 1806                      | $VO_{t-1}$ 1812                      | $VO_t$ 1820                        | $VO_t$ 1830                        | $VO_{t+1}$ 1842                                     |
| 1908         | —                                    | $VO_{t-1}$ 1814                      | $VO_{t-1}$ 1822                    | $VO_t$ 1832                        | $VO_t$ 1844   |
| 1910         | — 1807                               | —                                    | $VO_{t-1}$ 1824                    | $VO_{t-1}$ 1834                    | $VO_t$ 1846   |
| 1912         | —                                    | — 1815                               | —                                  | $VO_{t-1}$ 1836                    | $VO_{t-1}$ 1848                                     |
| 1918         | —                                    | —                                    | —                                  | —                                  | $VI_t -$ 1850<br>$0.1 * VO_t -$<br>$0.8 * VO_{t-1}$ |

FIG. 18





FI 6. 19.

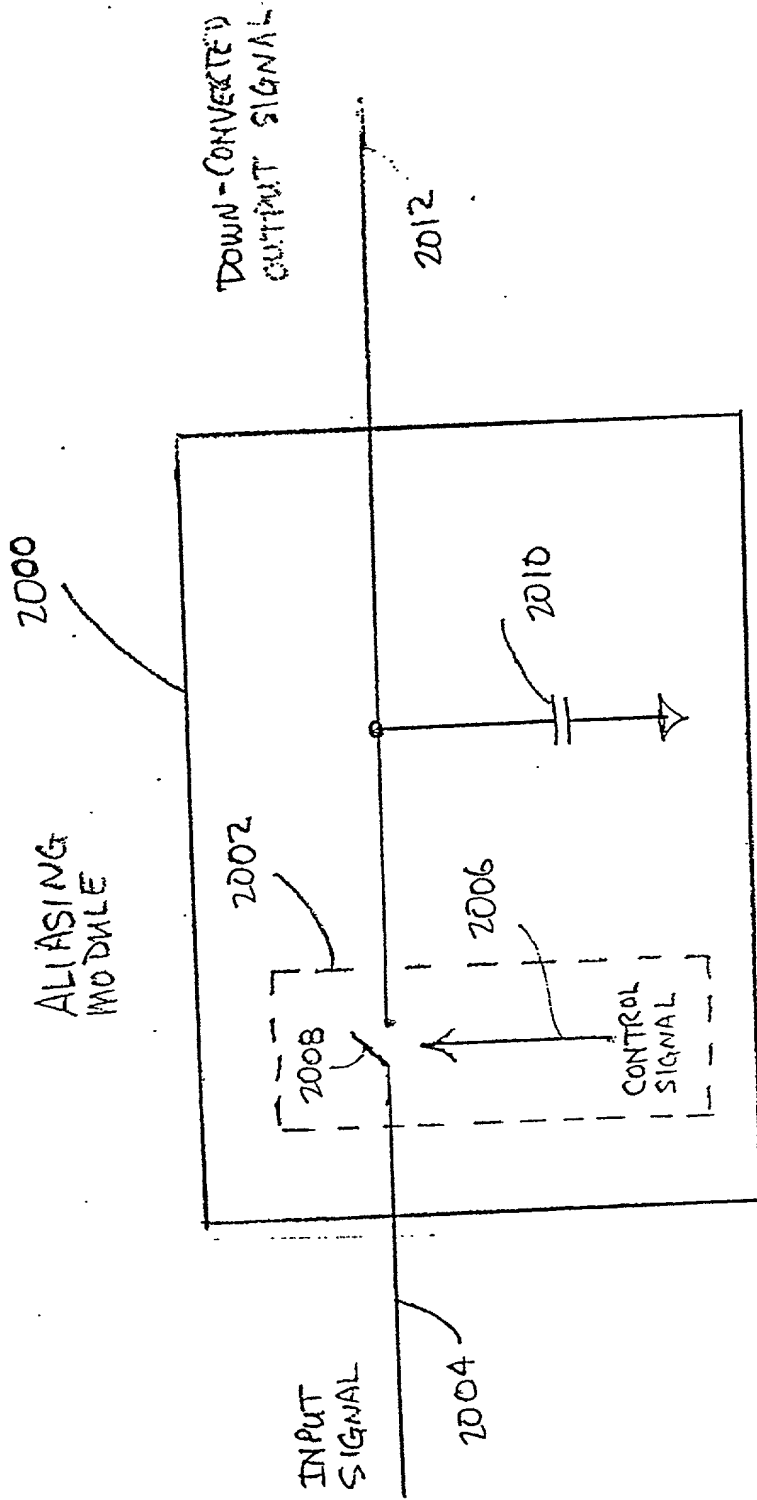


FIG. 20A

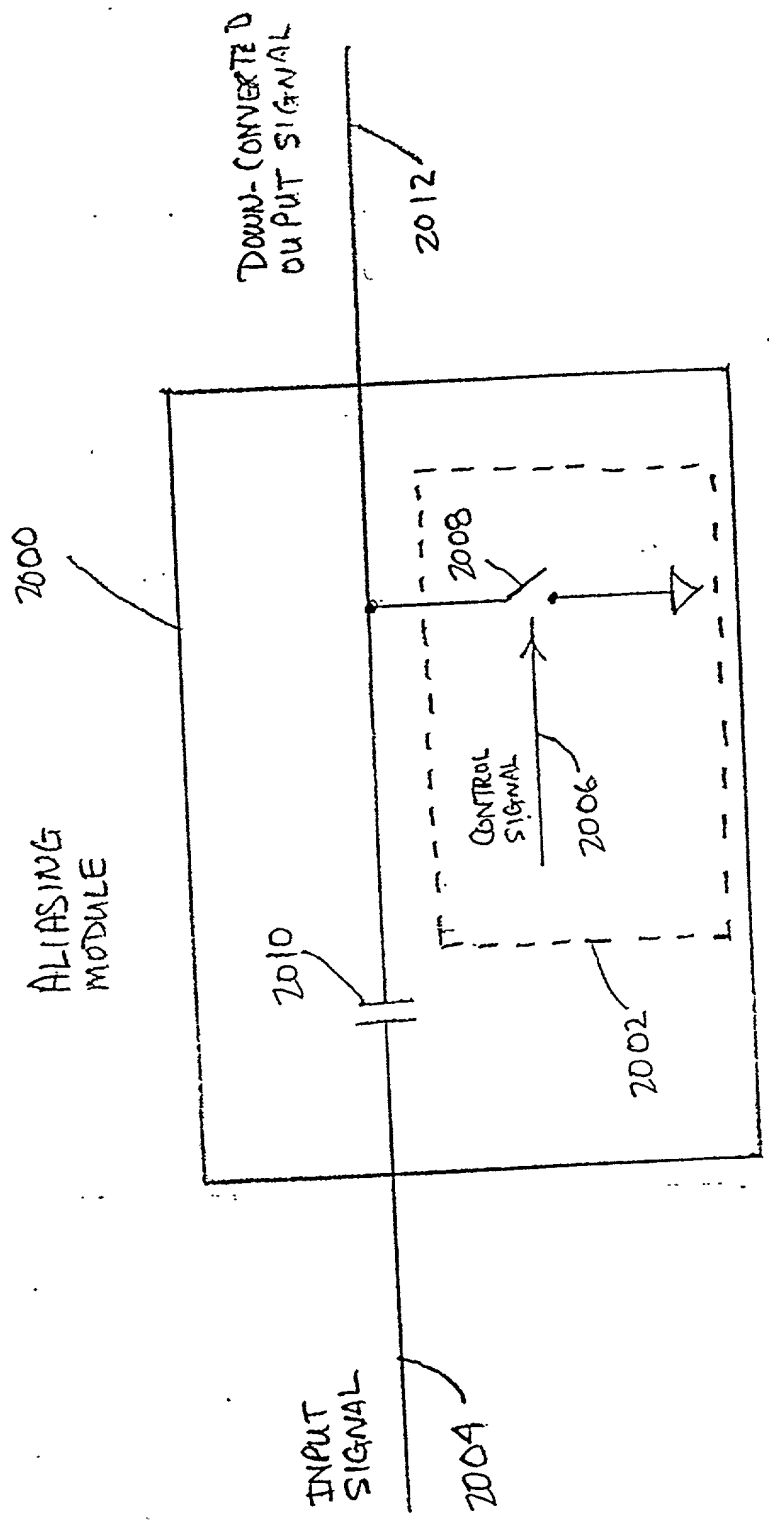


FIG. 20A-1

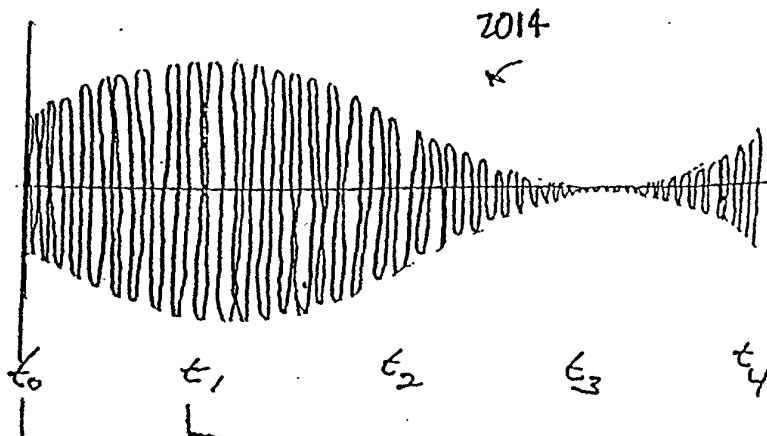


FIG. 20B

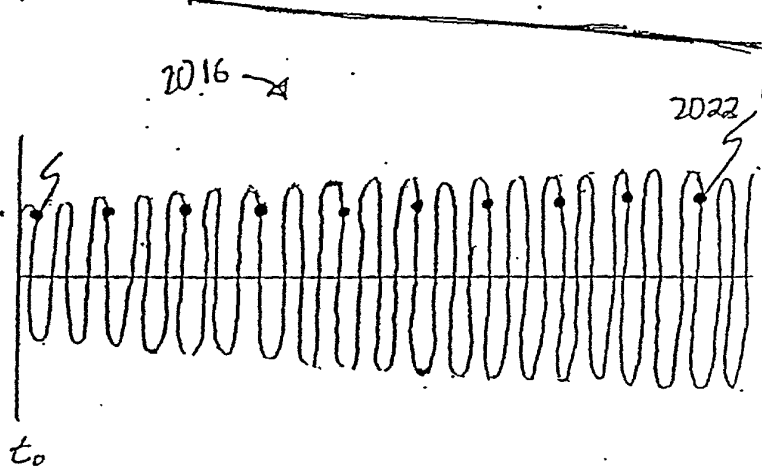


FIG. 20C

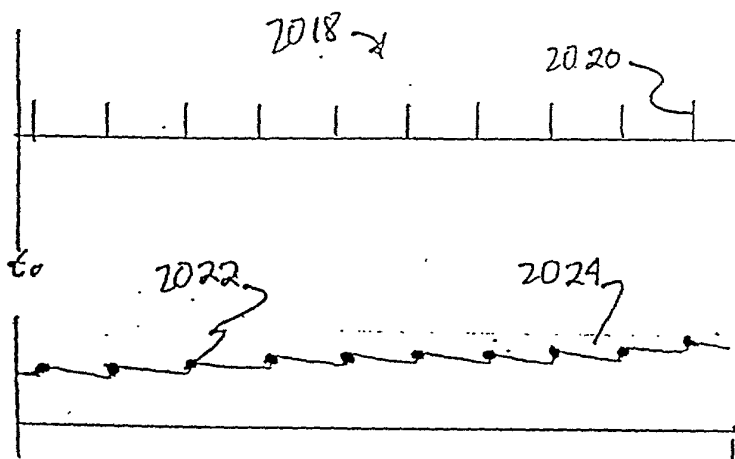


FIG. 20D

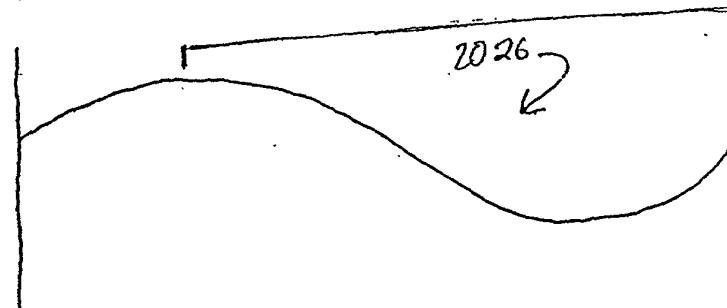


FIG. 20E



FIG. 20F

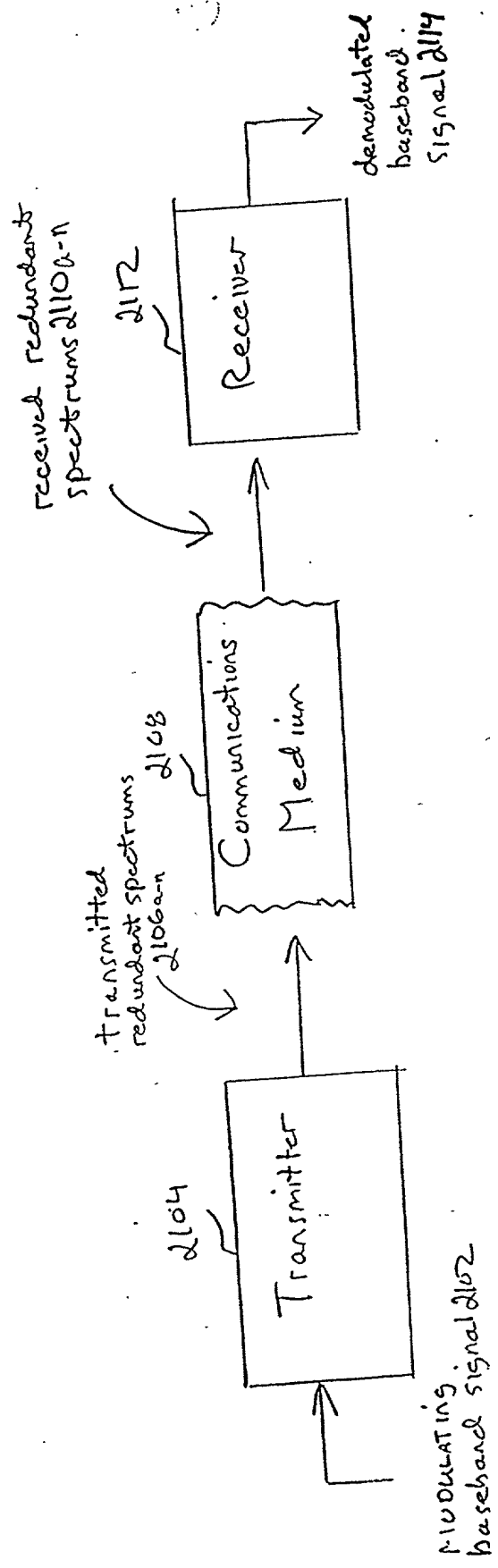
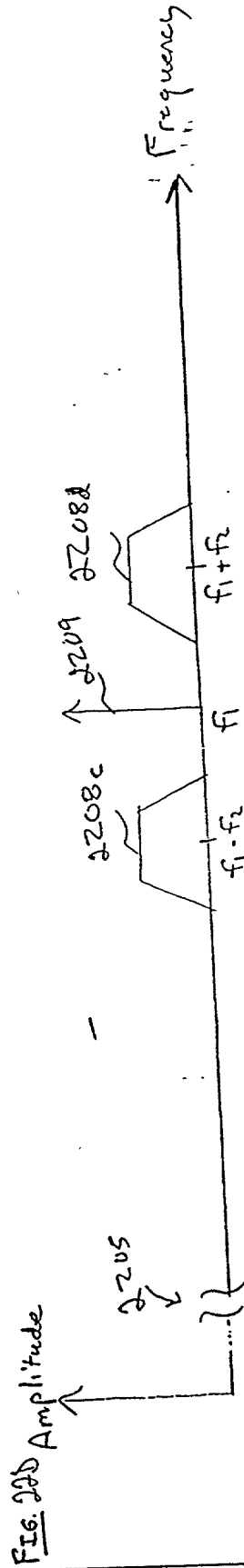
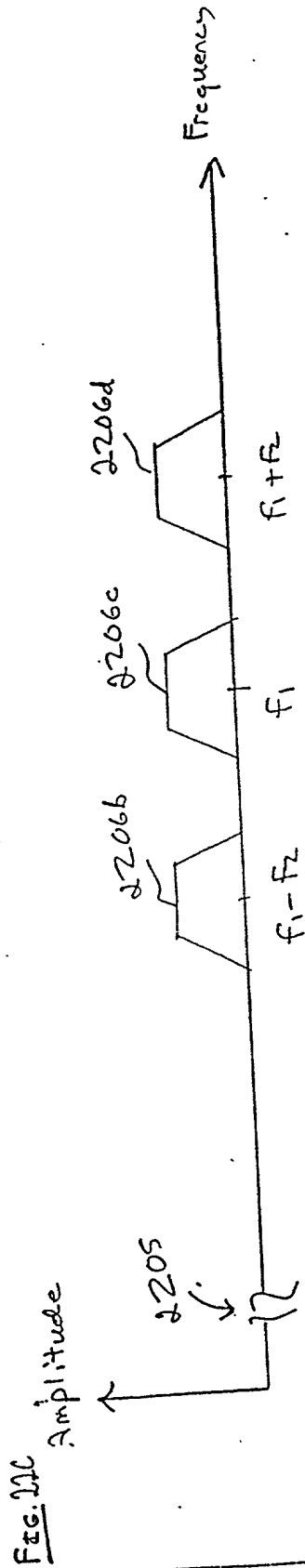
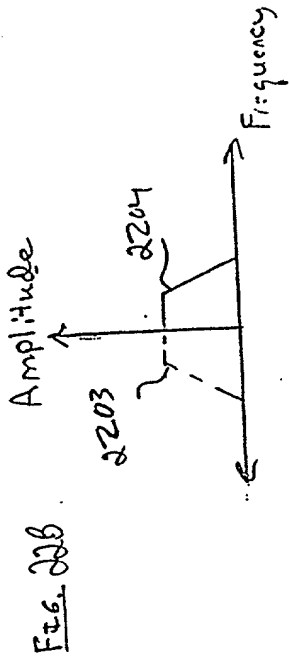
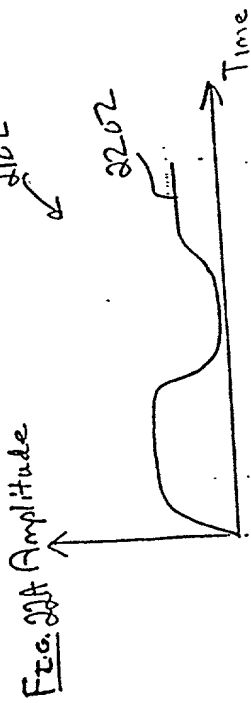
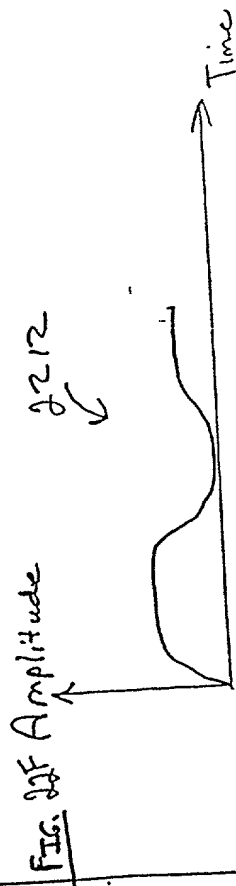
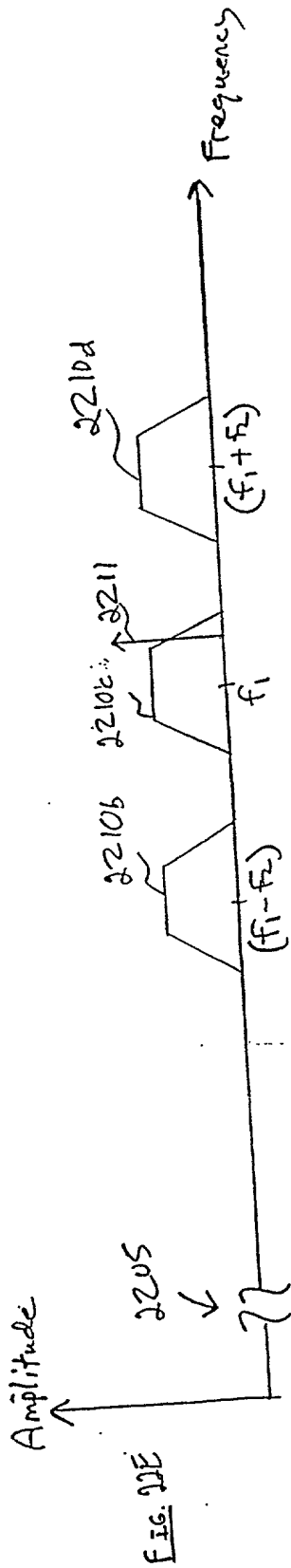


Fig. 21





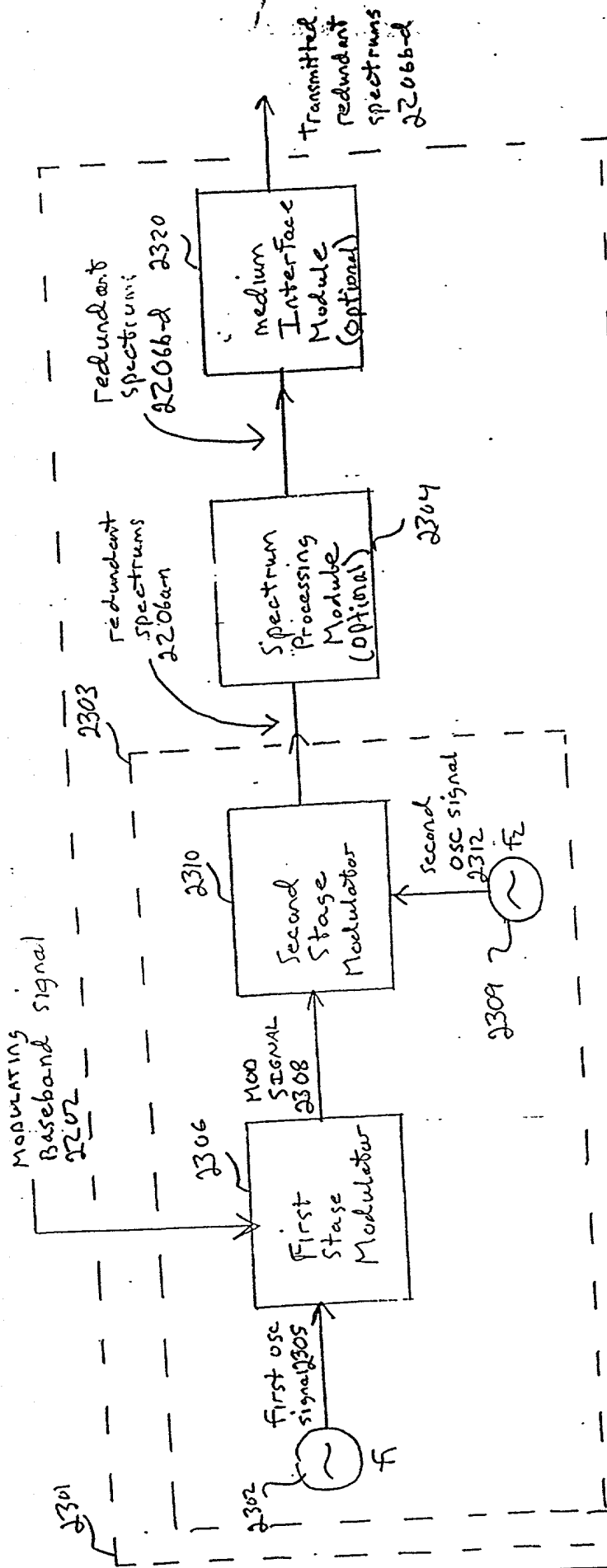
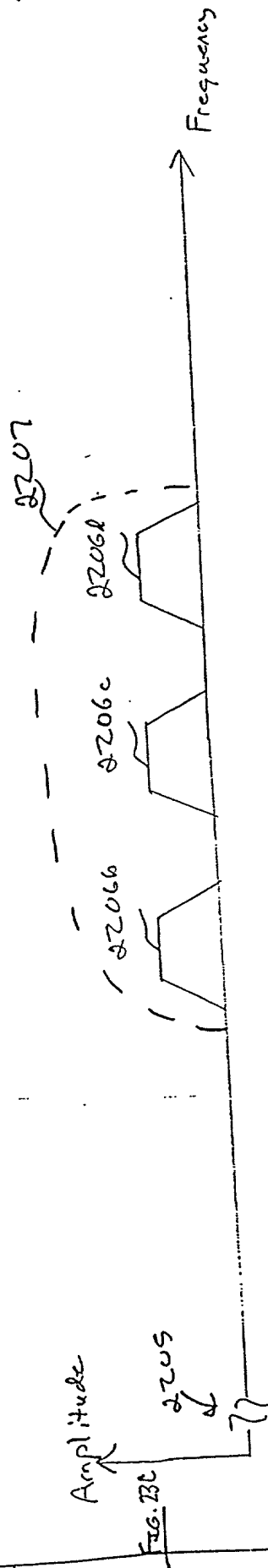
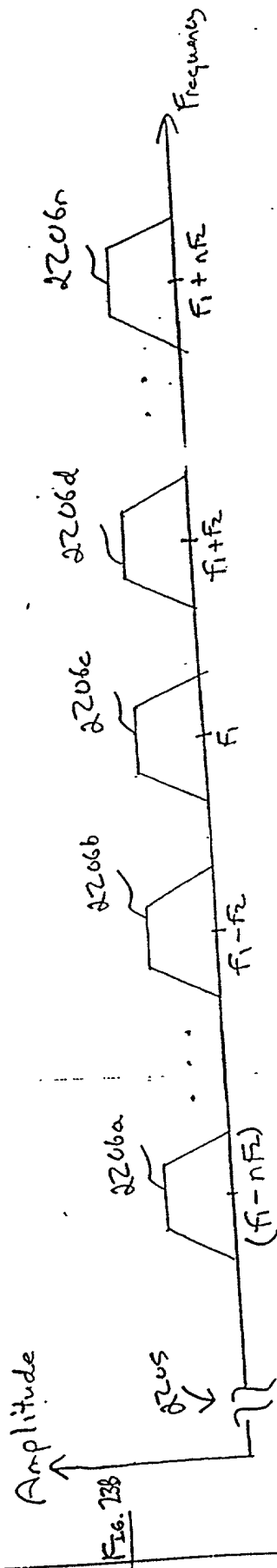
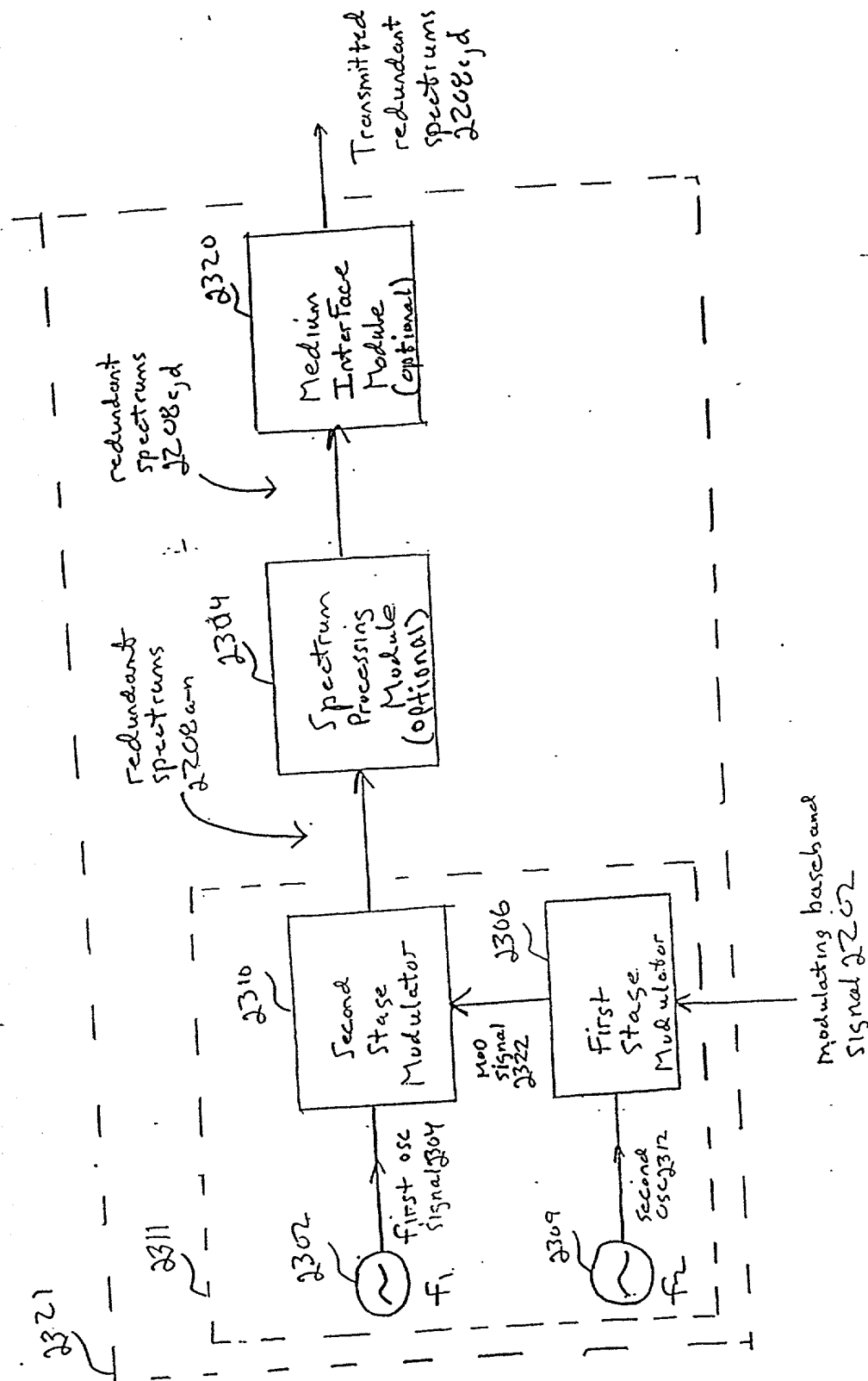


FIG. 23A



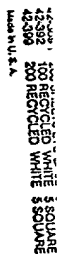




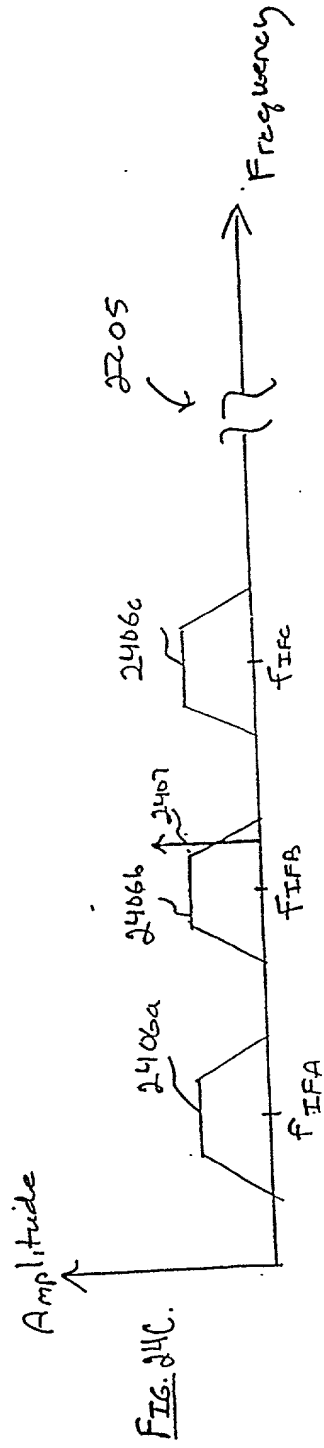
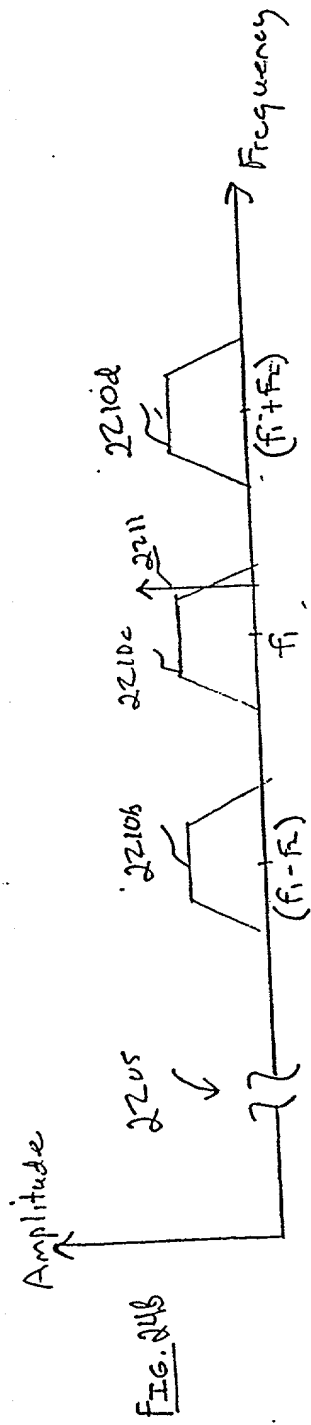
3

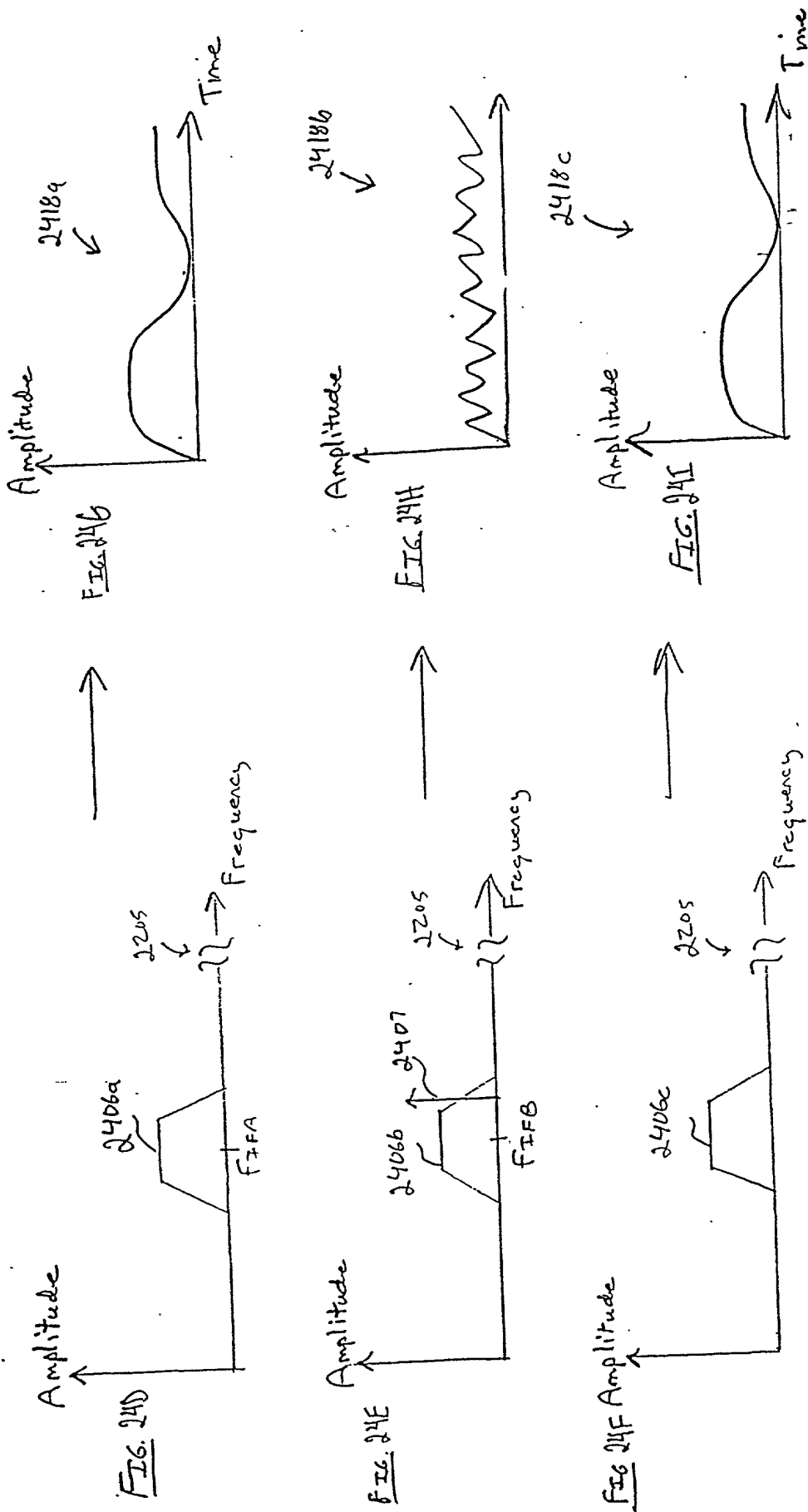


2325



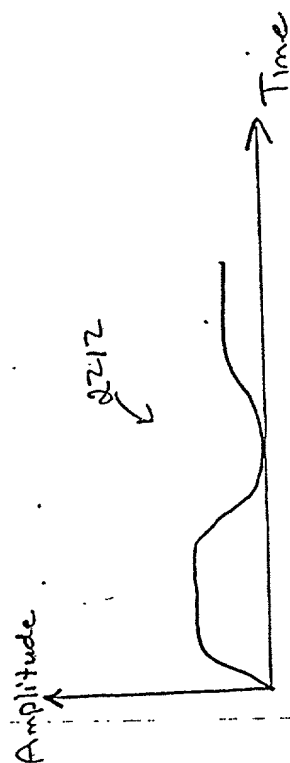






**First National Bank**

| Year       | 1950      | 1951      | 1952      | 1953      | 1954      | 1955      | 1956      | 1957      | 1958      | 1959      | 1960      | 1961      | 1962      | 1963      | 1964      | 1965      | 1966      | 1967      | 1968      | 1969      | 1970      | 1971      | 1972      | 1973      | 1974      | 1975      | 1976      | 1977      | 1978      | 1979      | 1980      | 1981      | 1982      | 1983      | 1984      | 1985      | 1986      | 1987      | 1988      | 1989      | 1990      | 1991      | 1992      | 1993      | 1994      | 1995      | 1996      | 1997      | 1998      | 1999      | 2000      | 2001      | 2002      | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036      | 2037      | 2038      | 2039      | 2040      | 2041      | 2042      | 2043      | 2044      | 2045      | 2046      | 2047      | 2048      | 2049      | 2050      | 2051      | 2052      | 2053      | 2054      | 2055      | 2056      | 2057      | 2058      | 2059      | 2060      | 2061      | 2062      | 2063      | 2064      | 2065      | 2066      | 2067      | 2068      | 2069      | 2070      | 2071      | 2072      | 2073      | 2074      | 2075      | 2076      | 2077      | 2078      | 2079      | 2080      | 2081      | 2082      | 2083      | 2084      | 2085      | 2086      | 2087      | 2088      | 2089      | 2090      | 2091      | 2092      | 2093      | 2094      | 2095      | 2096      | 2097      | 2098      | 2099      | 2100      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Population | 1,000,000 | 1,050,000 | 1,100,000 | 1,150,000 | 1,200,000 | 1,250,000 | 1,300,000 | 1,350,000 | 1,400,000 | 1,450,000 | 1,500,000 | 1,550,000 | 1,600,000 | 1,650,000 | 1,700,000 | 1,750,000 | 1,800,000 | 1,850,000 | 1,900,000 | 1,950,000 | 2,000,000 | 2,050,000 | 2,100,000 | 2,150,000 | 2,200,000 | 2,250,000 | 2,300,000 | 2,350,000 | 2,400,000 | 2,450,000 | 2,500,000 | 2,550,000 | 2,600,000 | 2,650,000 | 2,700,000 | 2,750,000 | 2,800,000 | 2,850,000 | 2,900,000 | 2,950,000 | 3,000,000 | 3,050,000 | 3,100,000 | 3,150,000 | 3,200,000 | 3,250,000 | 3,300,000 | 3,350,000 | 3,400,000 | 3,450,000 | 3,500,000 | 3,550,000 | 3,600,000 | 3,650,000 | 3,700,000 | 3,750,000 | 3,800,000 | 3,850,000 | 3,900,000 | 3,950,000 | 4,000,000 | 4,050,000 | 4,100,000 | 4,150,000 | 4,200,000 | 4,250,000 | 4,300,000 | 4,350,000 | 4,400,000 | 4,450,000 | 4,500,000 | 4,550,000 | 4,600,000 | 4,650,000 | 4,700,000 | 4,750,000 | 4,800,000 | 4,850,000 | 4,900,000 | 4,950,000 | 5,000,000 | 5,050,000 | 5,100,000 | 5,150,000 | 5,200,000 | 5,250,000 | 5,300,000 | 5,350,000 | 5,400,000 | 5,450,000 | 5,500,000 | 5,550,000 | 5,600,000 | 5,650,000 | 5,700,000 | 5,750,000 | 5,800,000 | 5,850,000 | 5,900,000 | 5,950,000 | 6,000,000 | 6,050,000 | 6,100,000 | 6,150,000 | 6,200,000 | 6,250,000 | 6,300,000 | 6,350,000 | 6,400,000 | 6,450,000 | 6,500,000 | 6,550,000 | 6,600,000 | 6,650,000 | 6,700,000 | 6,750,000 | 6,800,000 | 6,850,000 | 6,900,000 | 6,950,000 | 7,000,000 | 7,050,000 | 7,100,000 | 7,150,000 | 7,200,000 | 7,250,000 | 7,300,000 | 7,350,000 | 7,400,000 | 7,450,000 | 7,500,000 | 7,550,000 | 7,600,000 | 7,650,000 | 7,700,000 | 7,750,000 | 7,800,000 | 7,850,000 | 7,900,000 | 7,950,000 | 8,000,000 | 8,050,000 | 8,100,000 | 8,150,000 | 8,200,000 | 8,250,000 | 8,300,000 | 8,350,000 | 8,400,000 | 8,450,000 | 8,500,000 | 8,550,000 | 8,600,000 | 8,650,000 | 8,700,000 | 8,750,000 | 8,800,000 | 8,850,000 | 8,900,000 | 8,950,000 | 9,000,000 | 9,050,000 | 9,100,000 | 9,150,000 | 9,200,000 | 9,250,000 | 9,300,000 | 9,350,000 | 9,400,000 | 9,450,000 |



ITC 245

cordless phone 2590

2590 2592 2594 2596 2598

2507

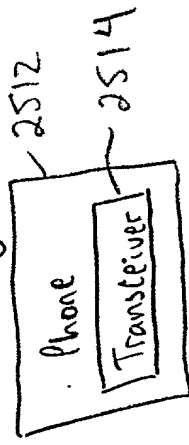
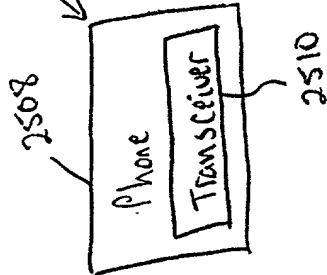
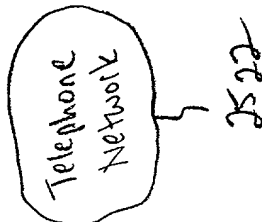
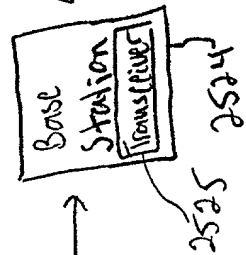
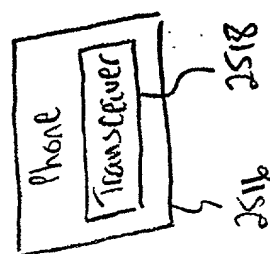
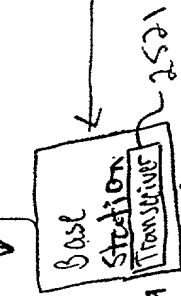
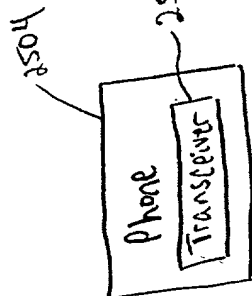
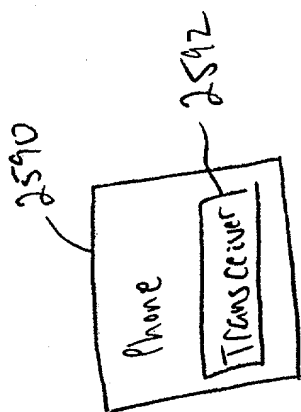
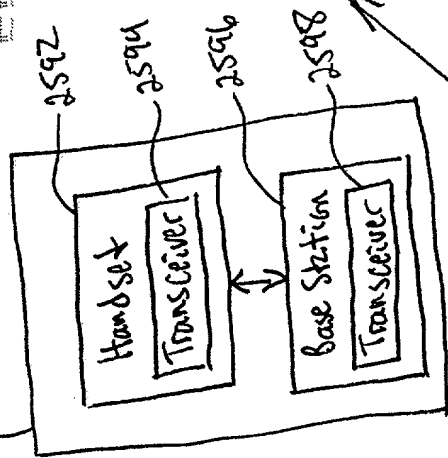


FIG. 25



FIG. 26

2607

Satellite 2604

Satellite 2606

2605

Satellite

positioning unit  
2608

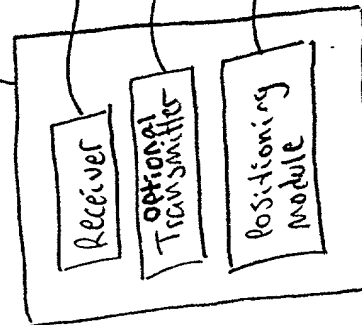


FIG. 26

2702

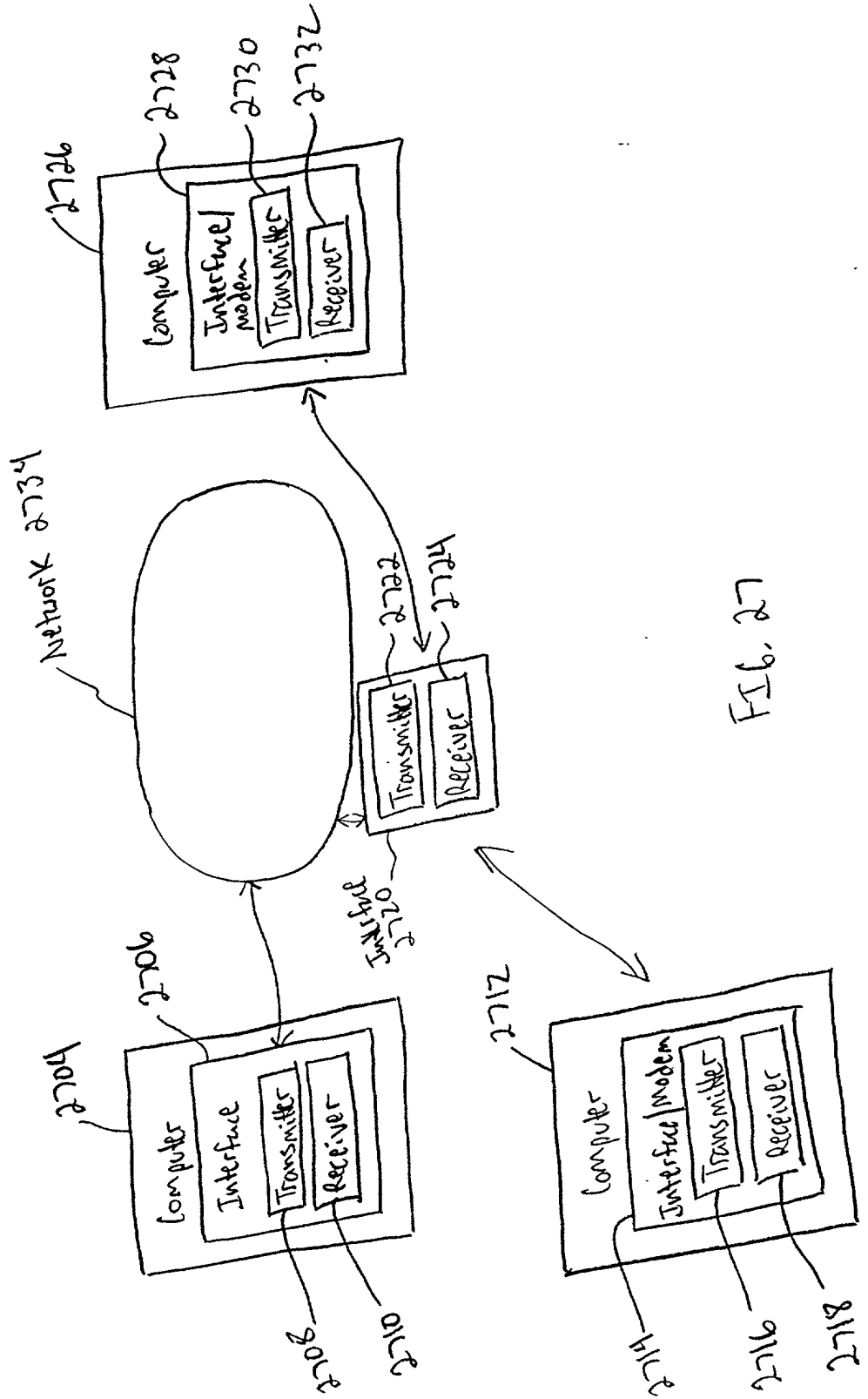


FIG. 27

2802

2804 2806 2808 2810 2812

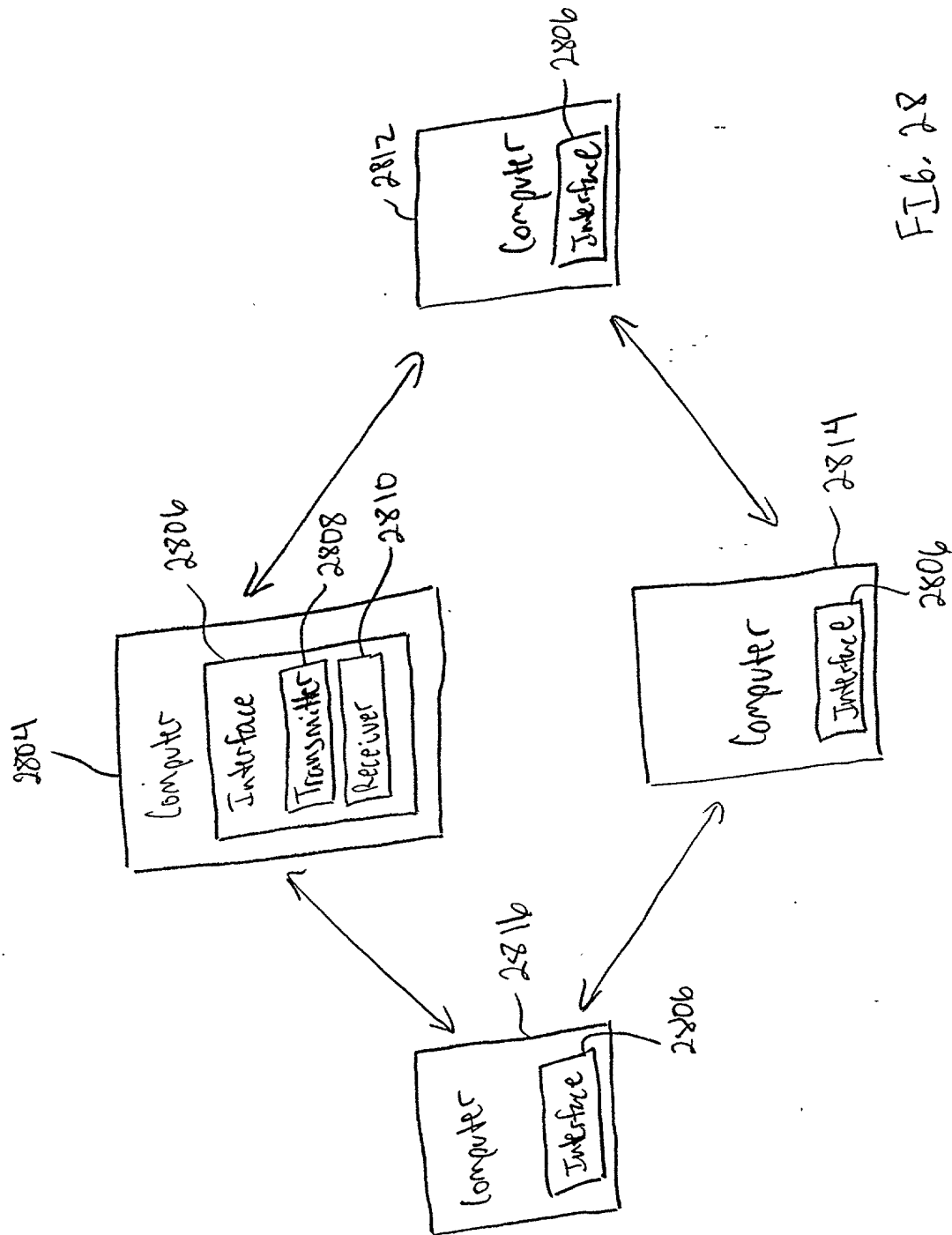


FIG. 28

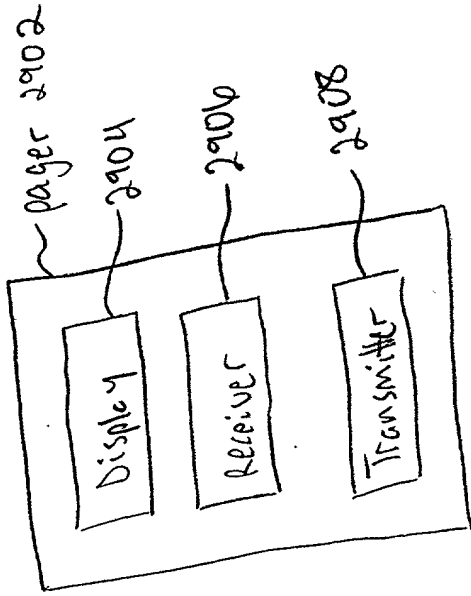


FIG. 29

2002

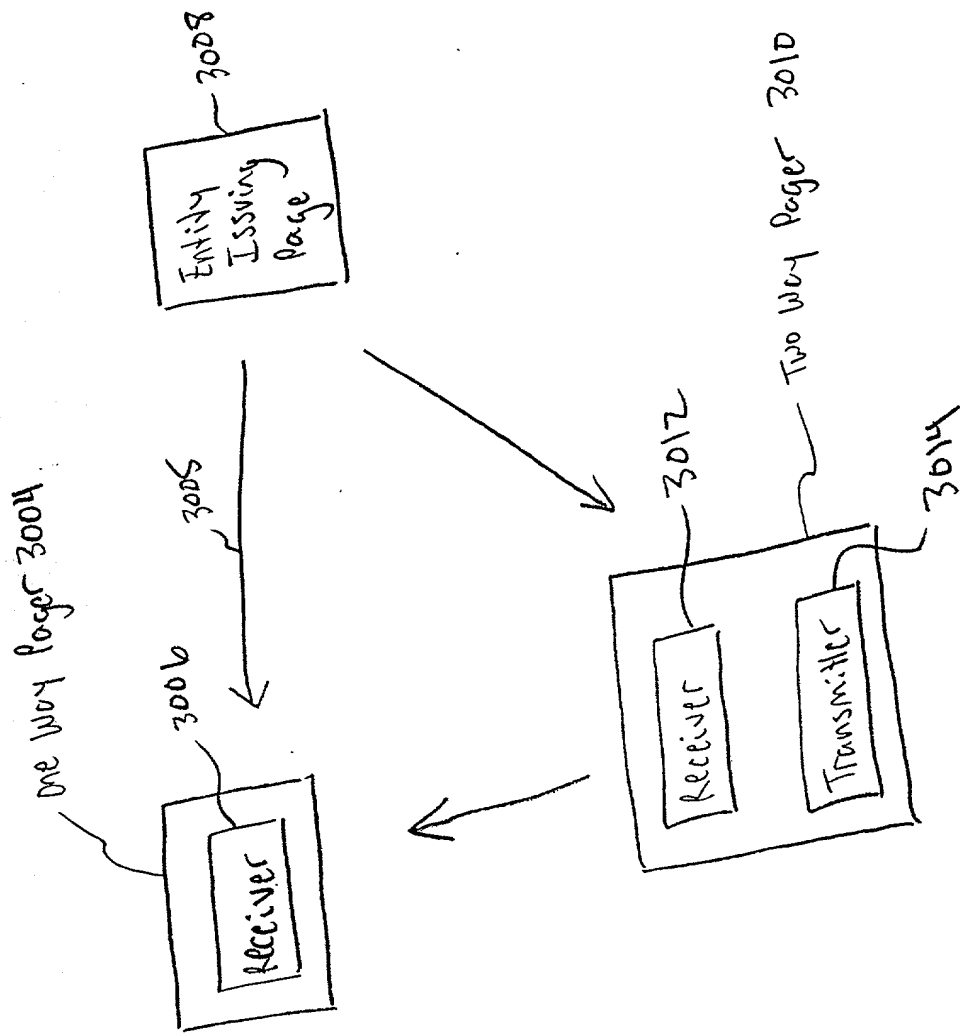


FIG. 30

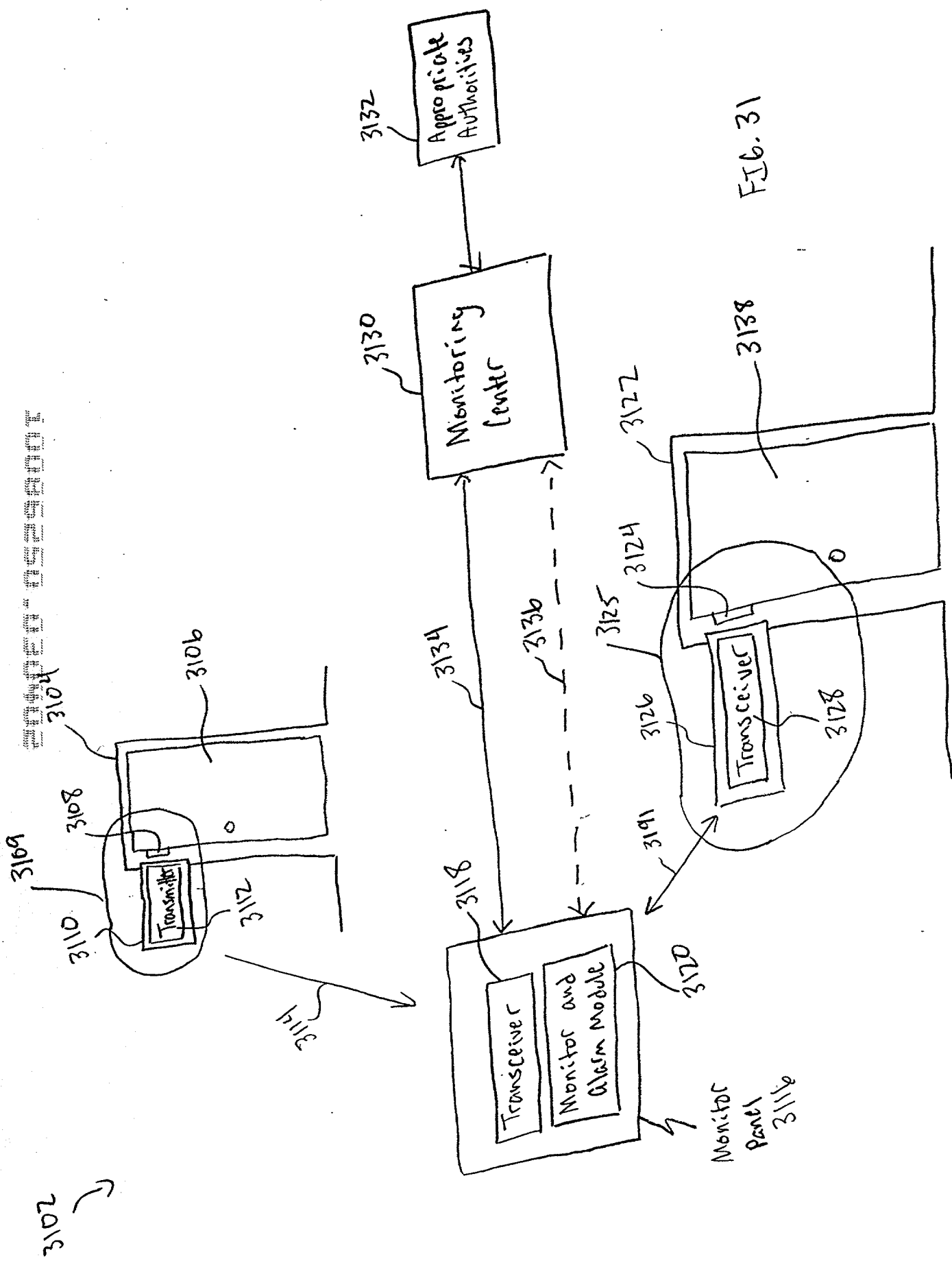


FIG. 31

3202

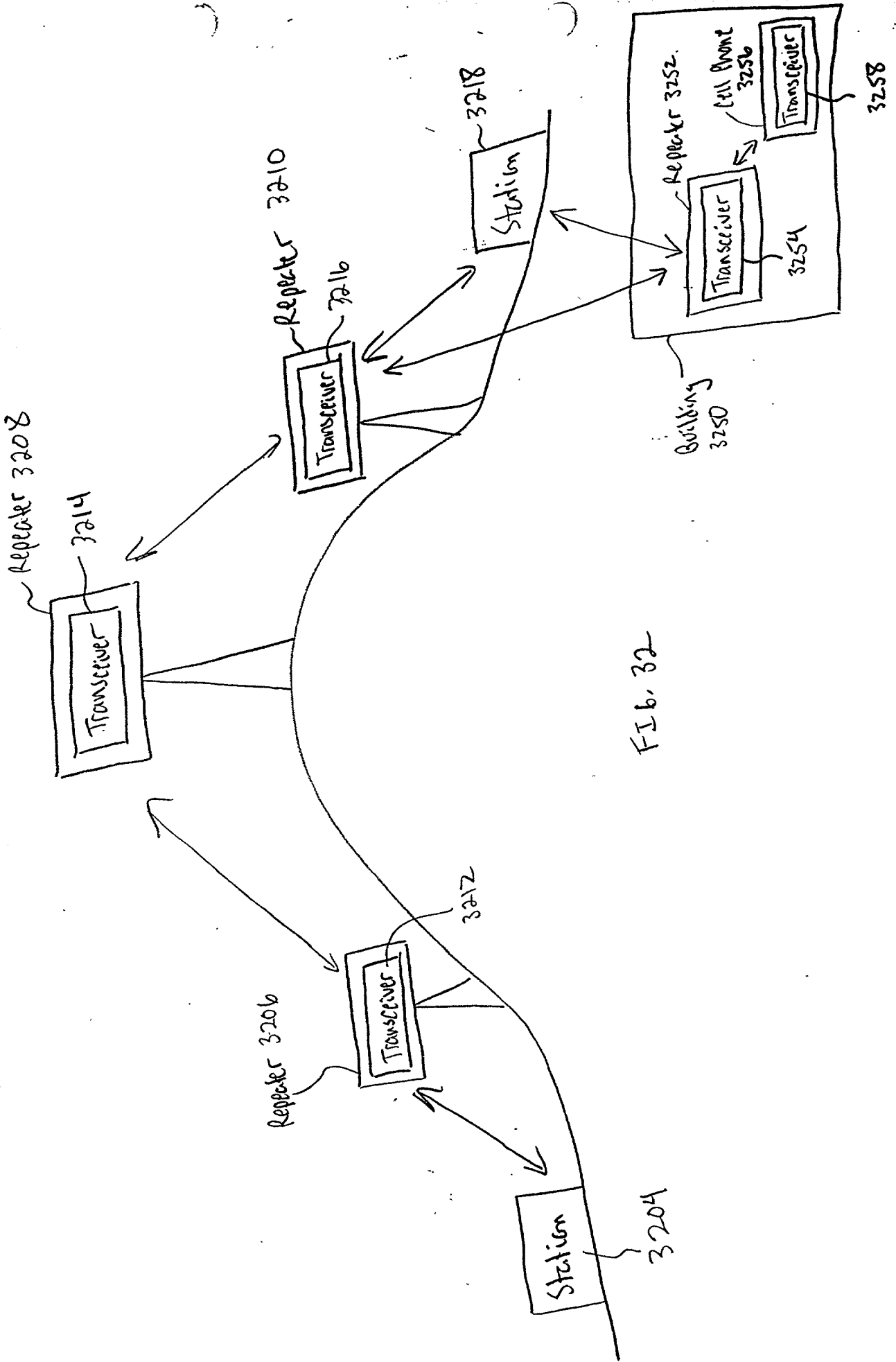


FIG. 32

3302

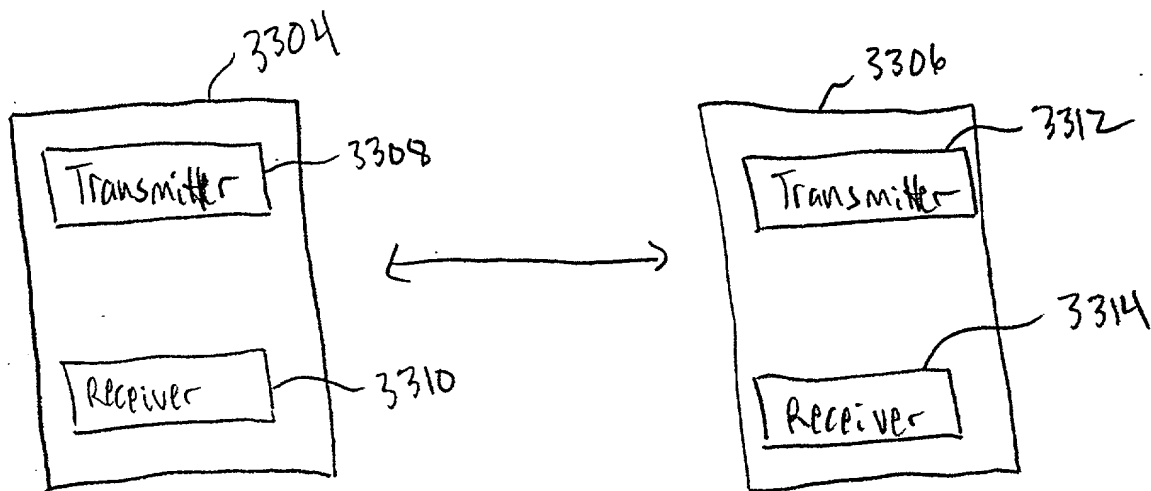


FIG. 33



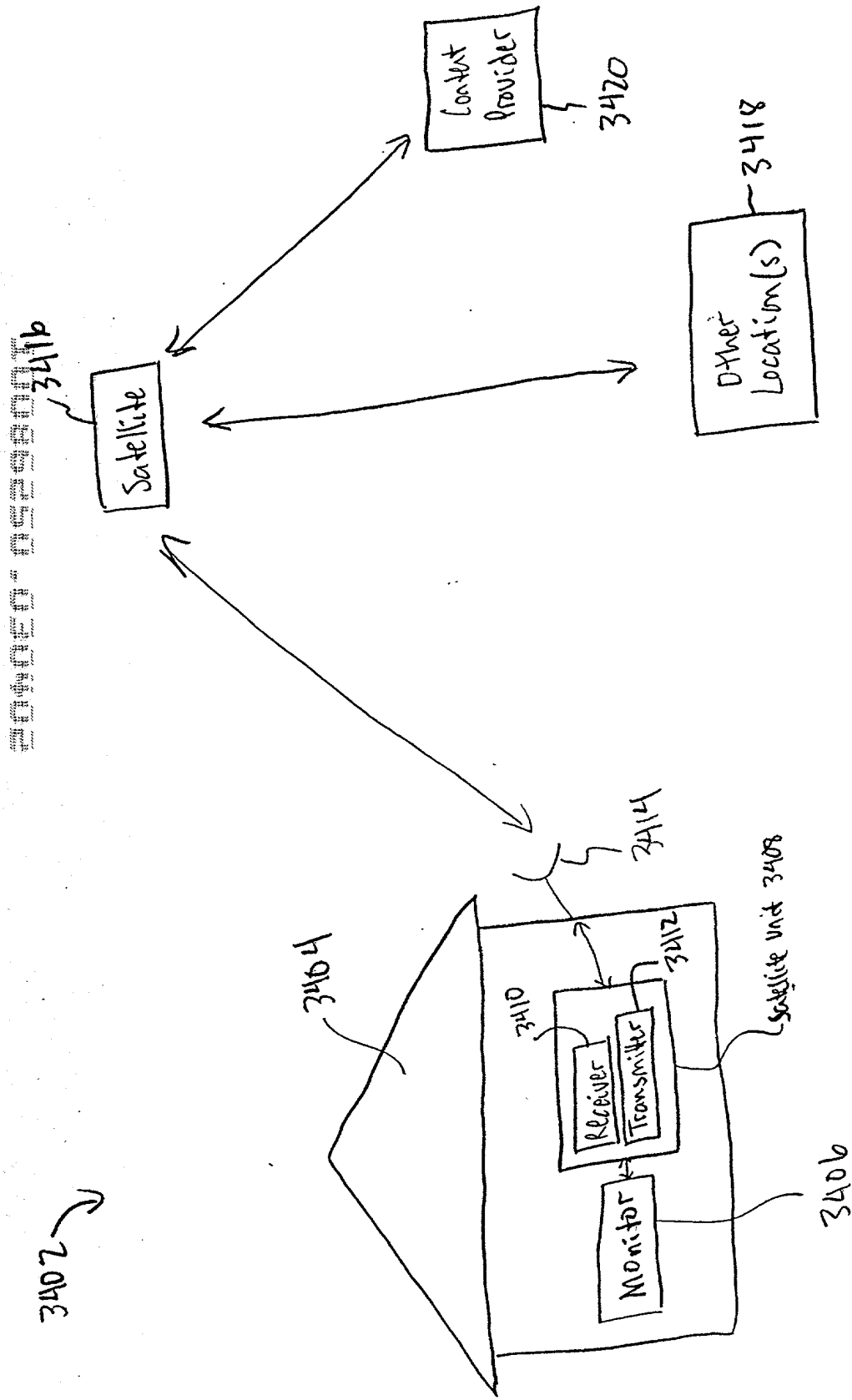


FIG. 34

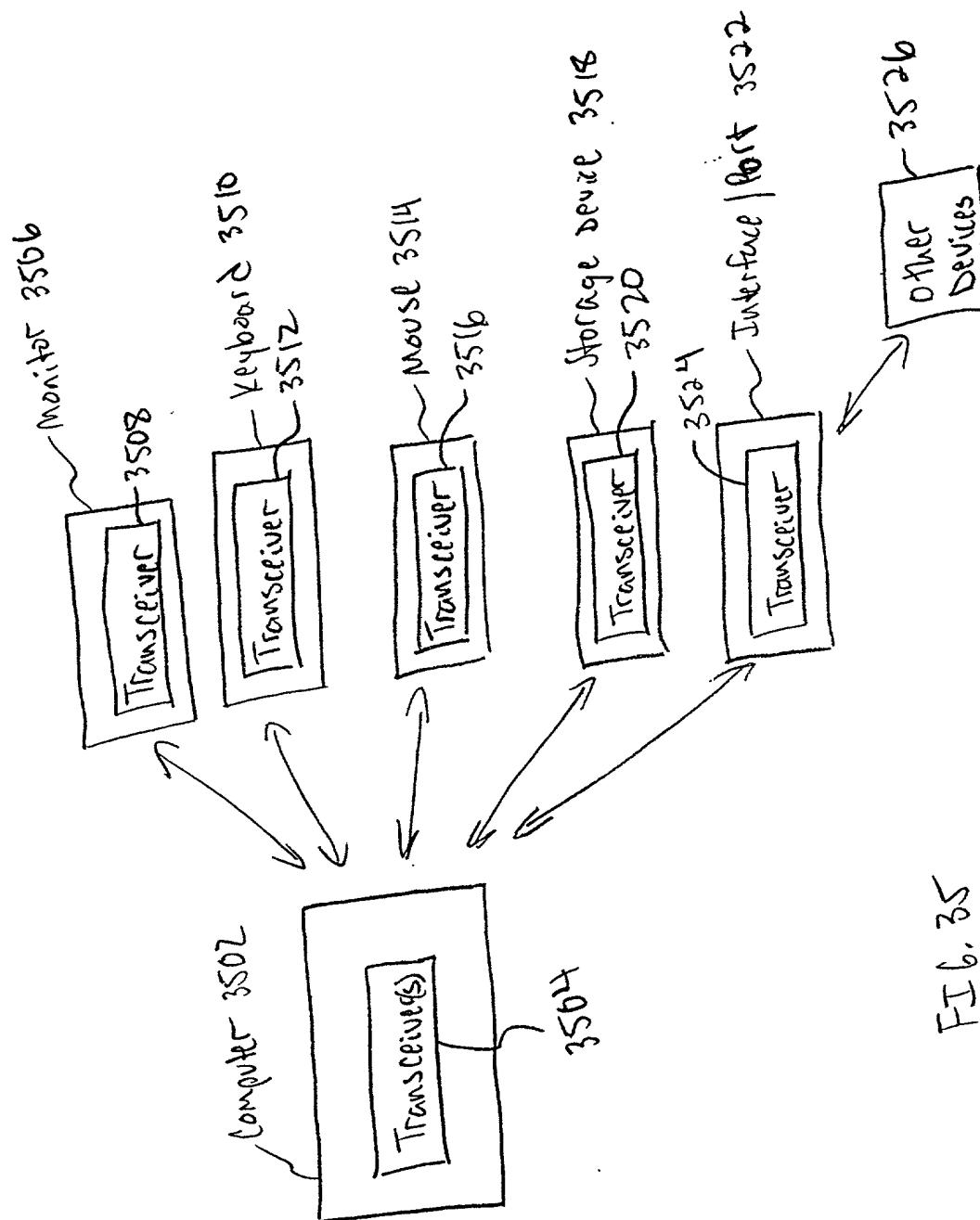


FIG. 35



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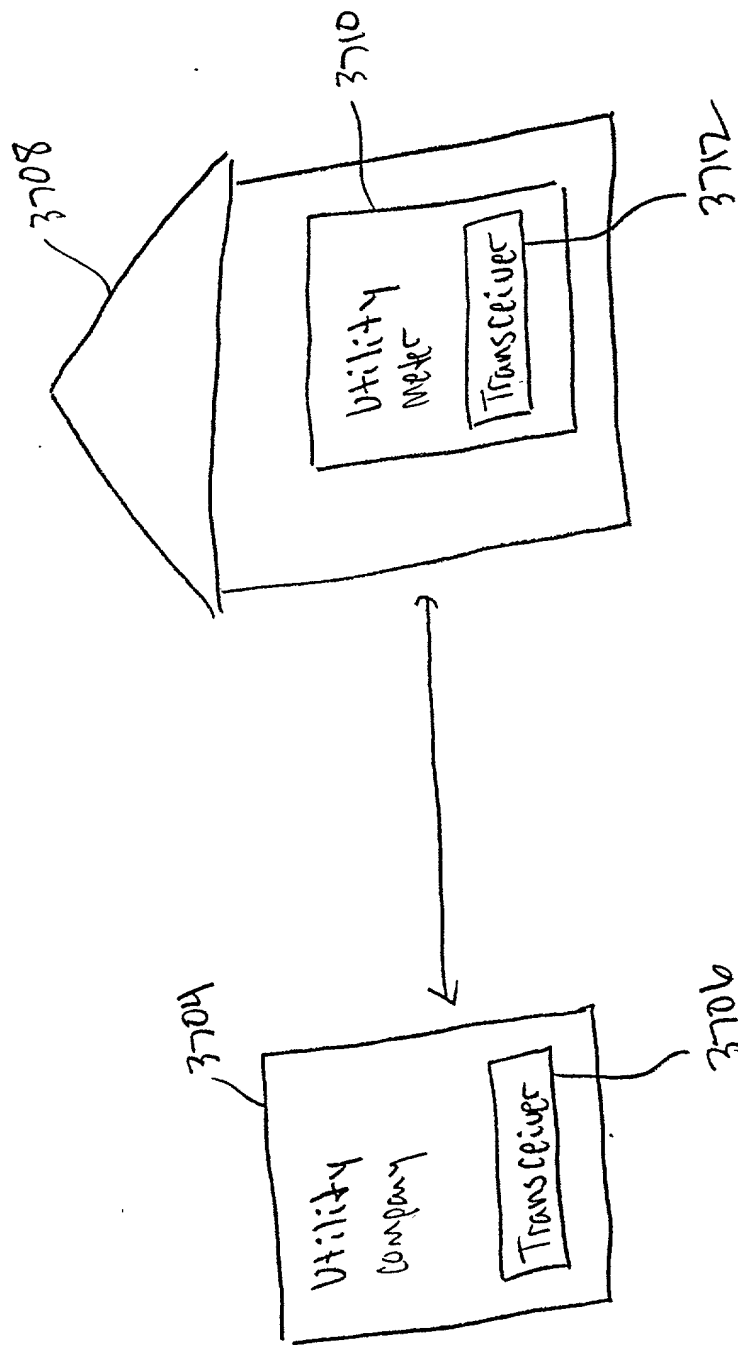


FIG. 37

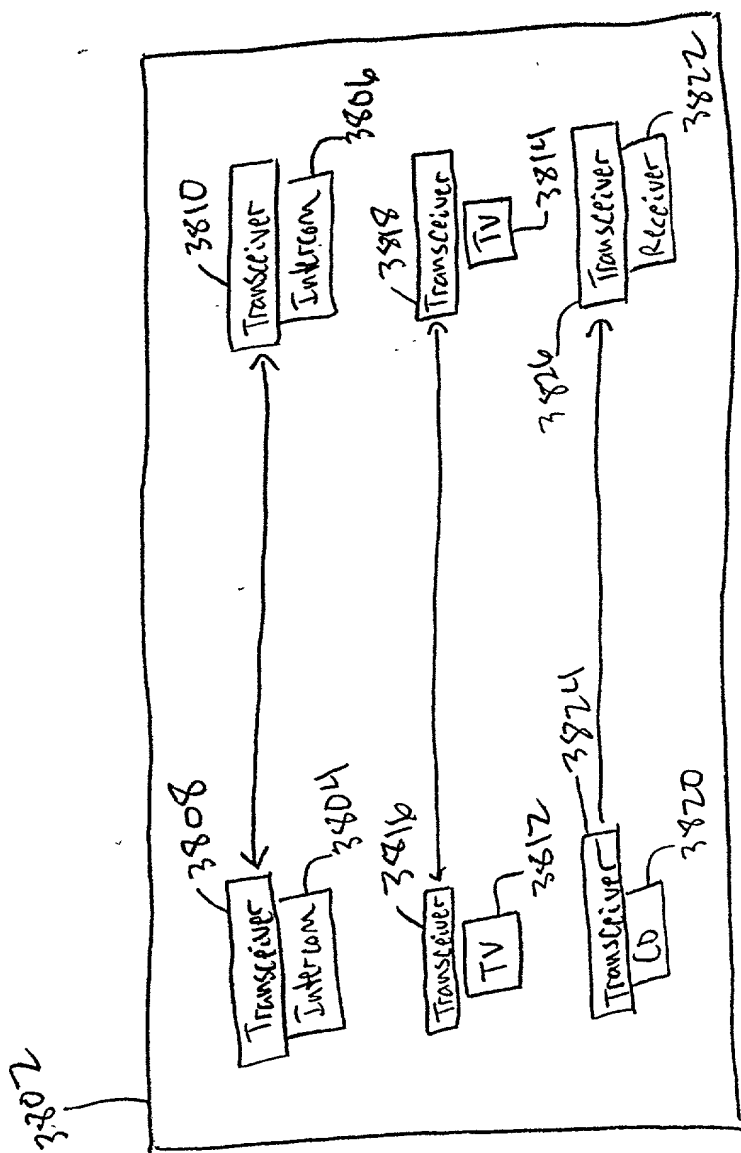


FIG. 38

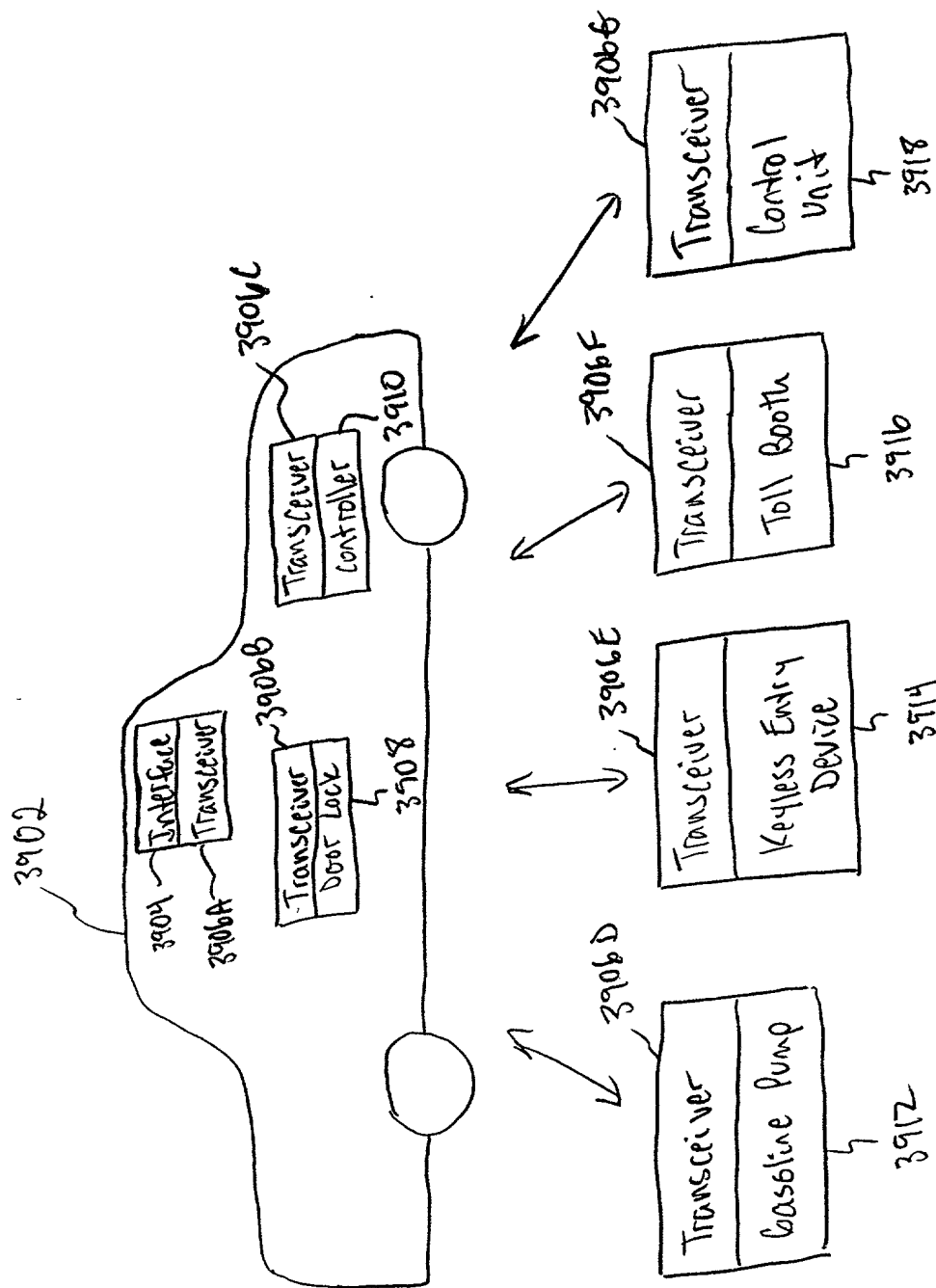


FIG. 39

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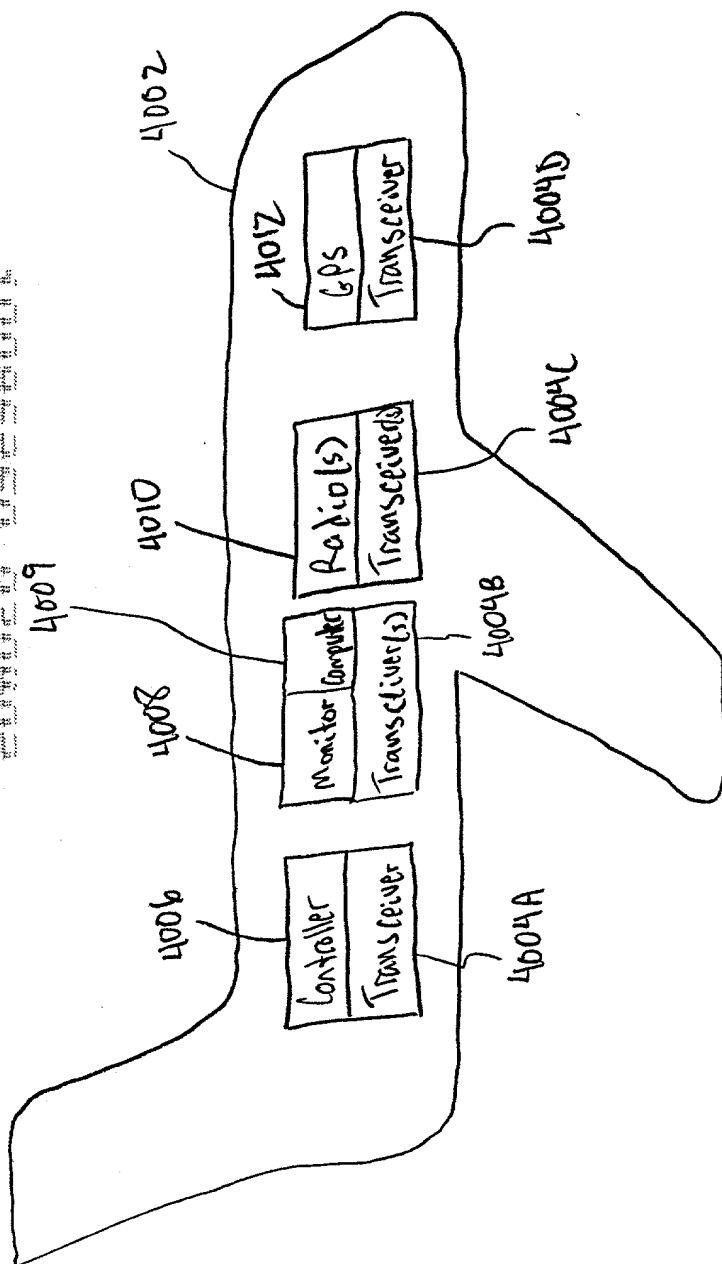


FIG. 40A

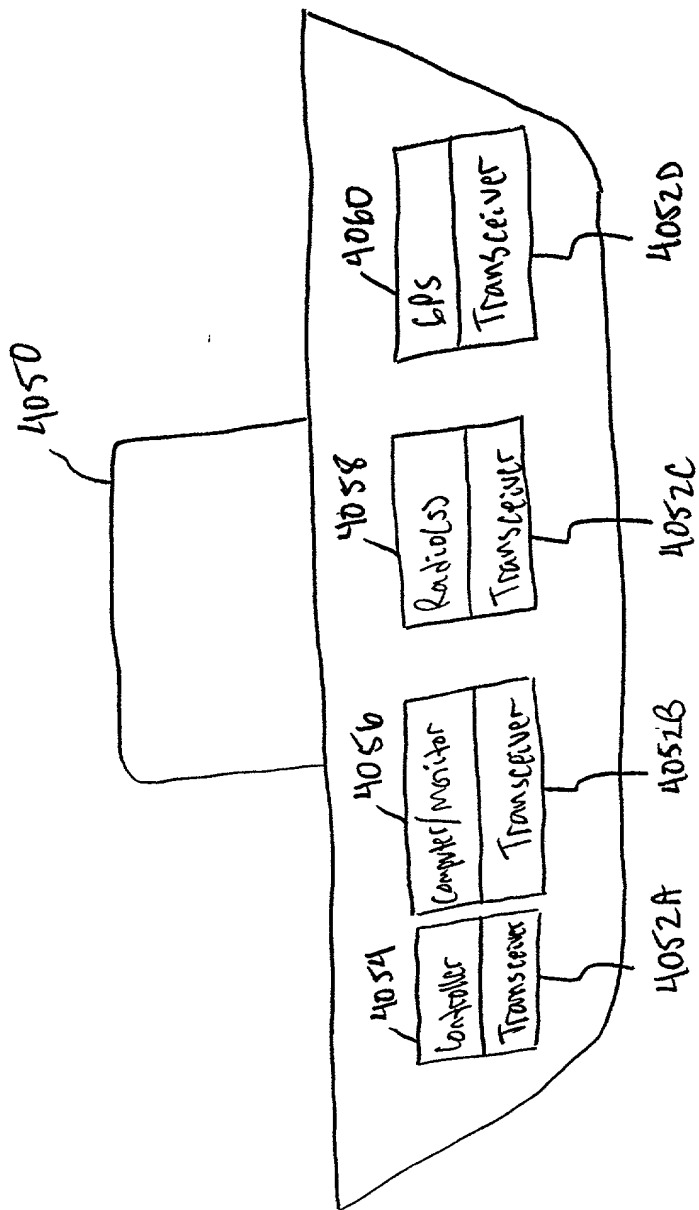


FIG. 40B



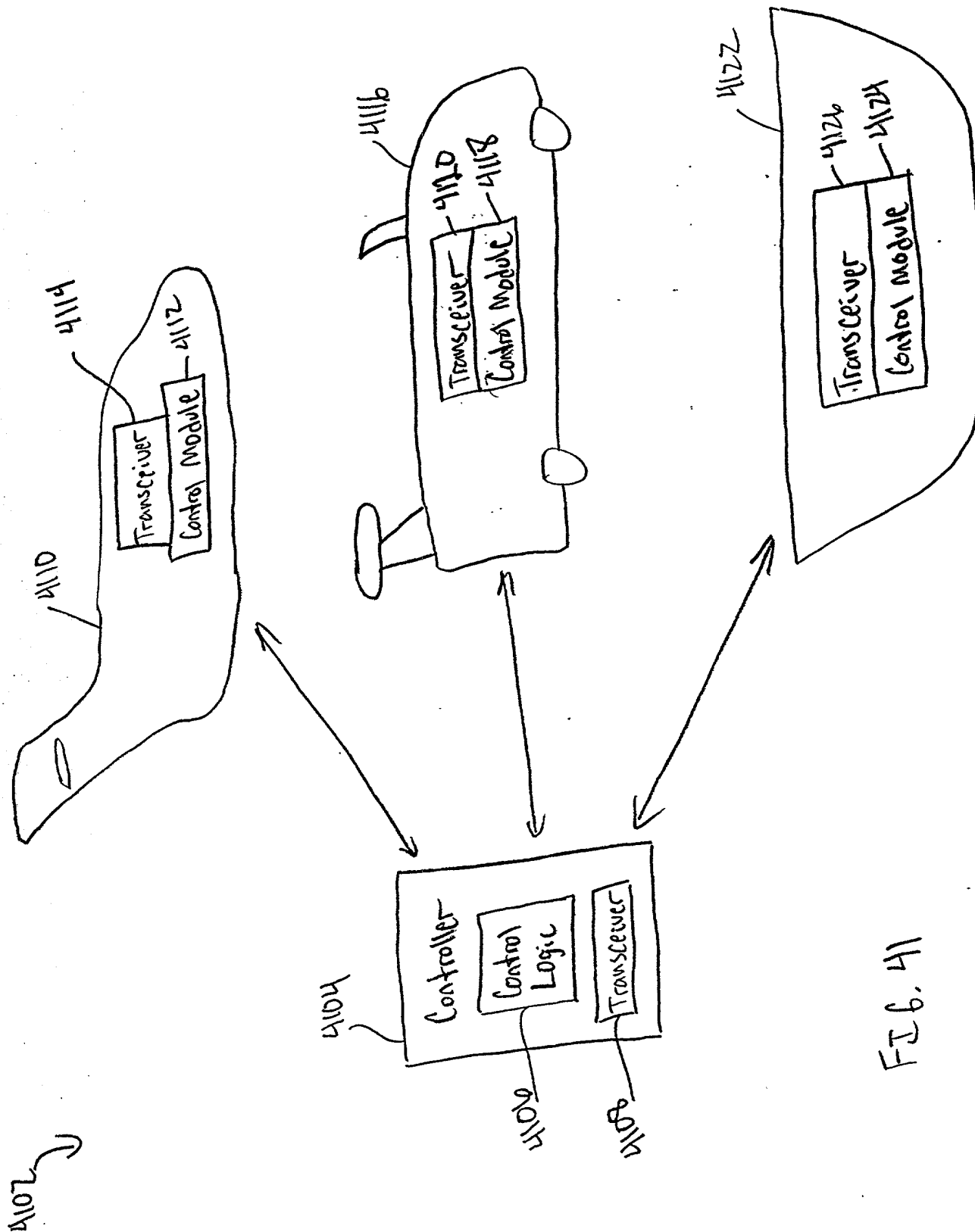


FIG. 4

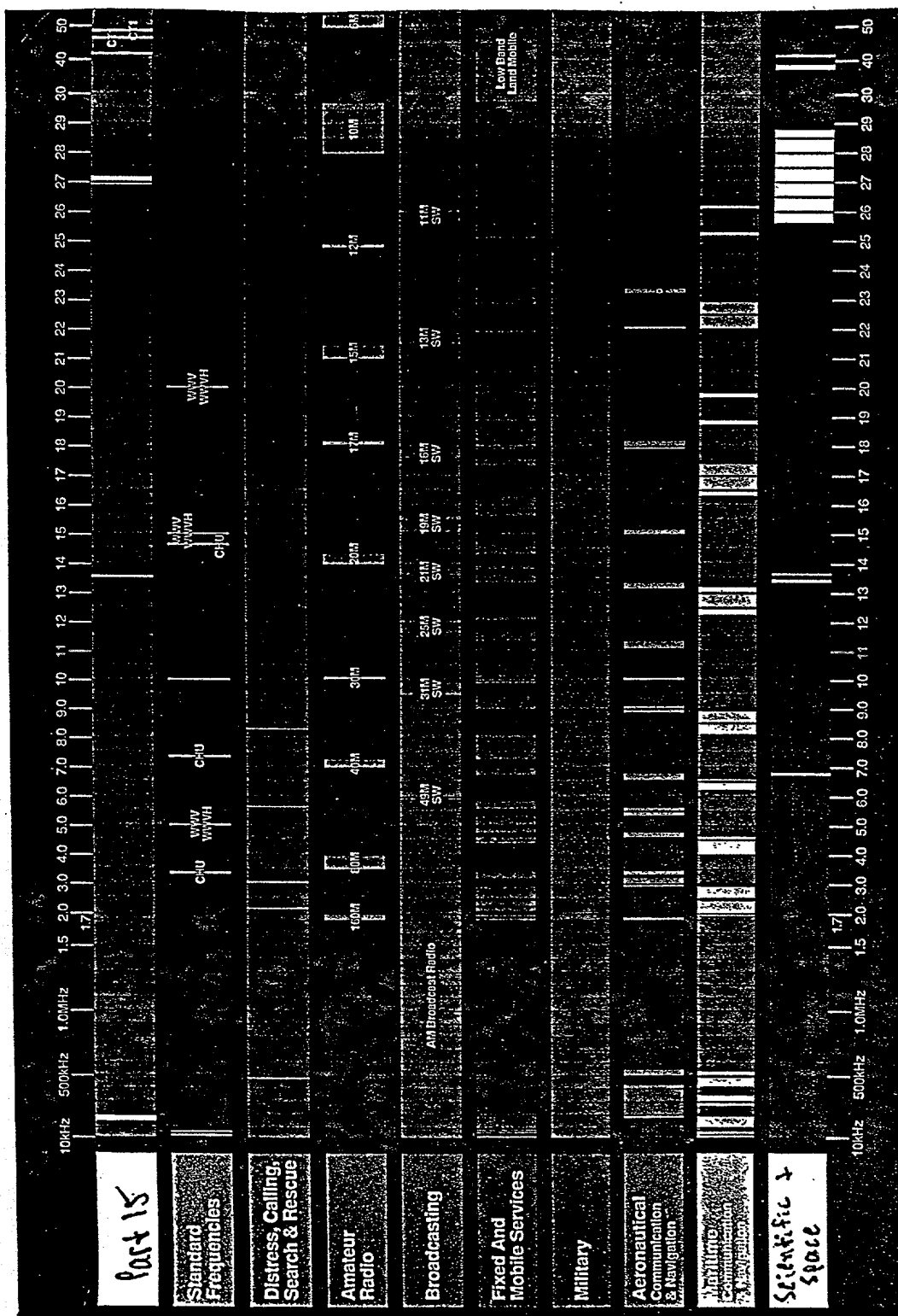
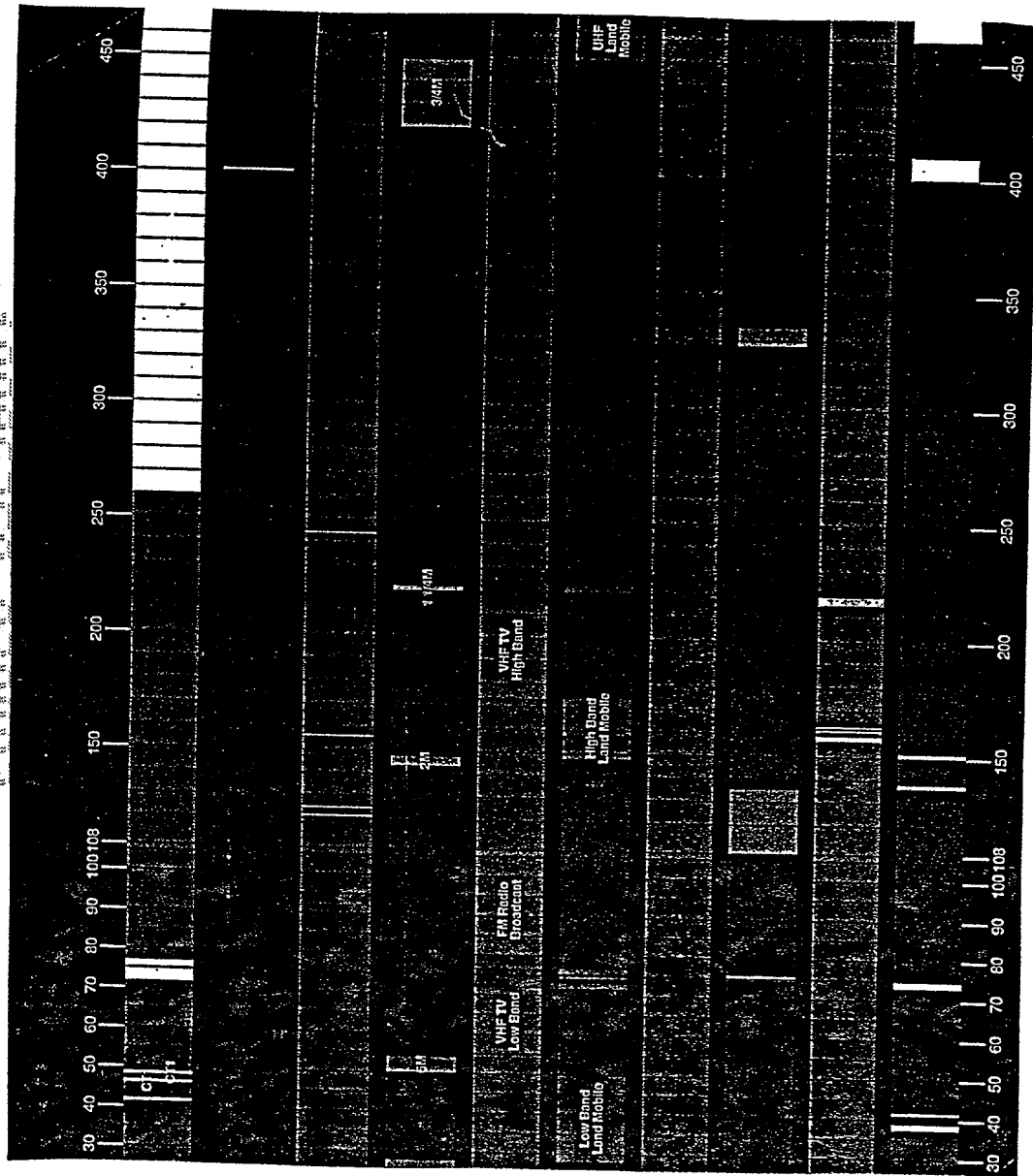


FIG. 42A

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Fib. 428

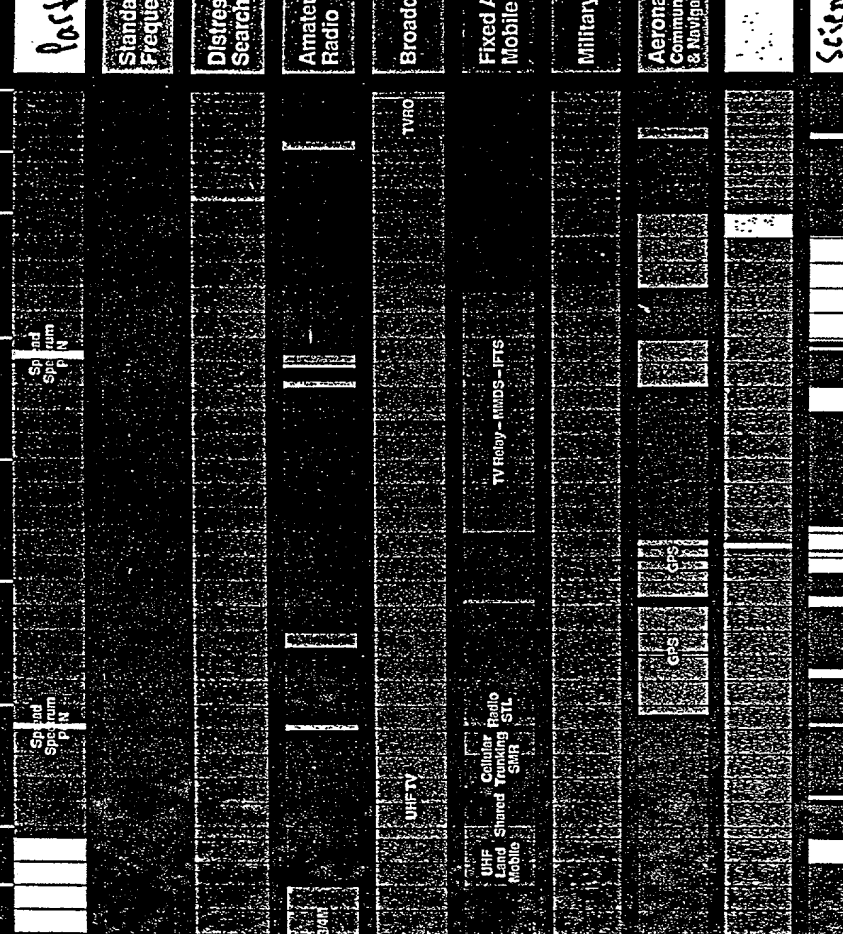


FIG. 42C

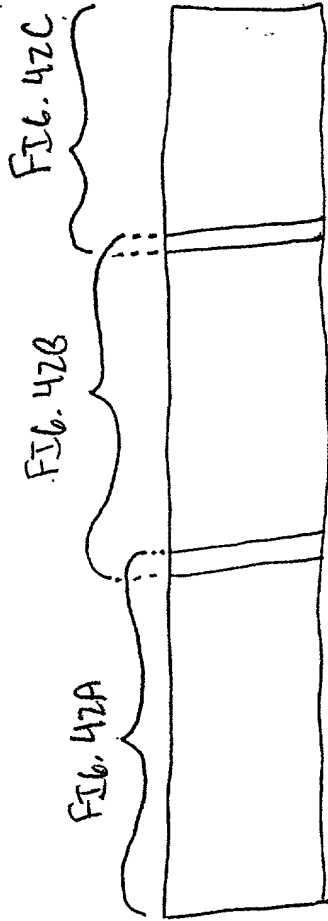


FIG. 42D

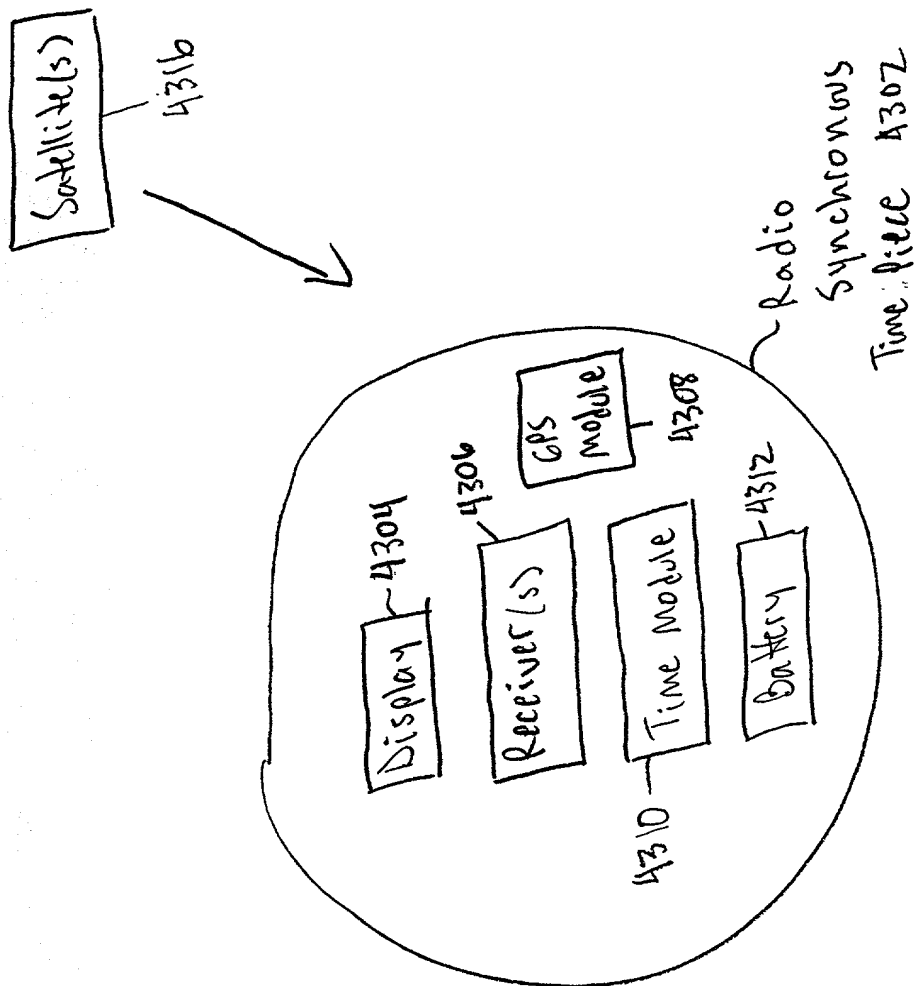


FIG. 43

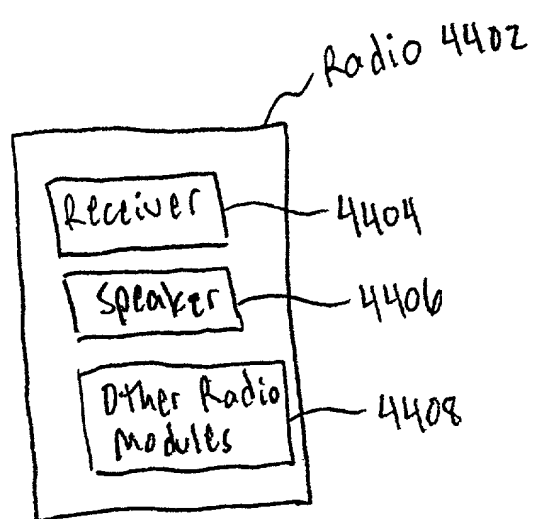


FIG. 44